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OCCUPATIONAL EMPLOYMENT IN MANUFACTURING AND HOSPITALS

NORTH CAROLINA

1983

EMPLOYMENT SECURITY COMMISSION
OF NORTH CAROLINA

Glenn R. Jernigan, Chairman

This is a cooperative program involving the Employment Security Commission of North Carolina and the Bureau of Labor Statistics of the U.S. Department of Labor.

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INTRODUCTION

The manpower planning process has increased the need for occupational employment information. The Employment and Training Administration and the Bureau of Labor Statistics, both of the U.S. Department of Labor, have developed the Occupational Employment Statistics (OES) Program to help meet these manpower planning needs. The OES Program has three main elements:

1. Periodic surveys of approximately 2,000 occupations by industry

2. The National/State Industry Occupation Employment Matrix

3. State and area manpower projections by industry and occupation

This report is the fourteenth published output of a North Carolina Occupational survey. This publication is based on a survey of manufacturing industries and hospitals as defined by the 1972 Standard Industrial Classification Manual. Data collection extended from June, 1983 through March, 1984.

In 1983, there was an average of 788,800 persons employed in manufacturing establishments in North Carolina. This was 32.8% of the total nonagricultural wage and salary employment in the State. Chart A shows the relationship of manufacturing employment to the other major divisions of nonagricultural wage and salary employment in the State for 1983. Chart B shows the average annual nonagricultural wage and salary employment in North Carolina from 1973 to 1983. Chart C shows the average annual employment for manufacturing from 1973 to 1983.

NOTE: Employment data for Charts A, B, and C are expressed as average annual figures. The information was obtained from the Current Employment Statistics Program of the Employment Security Commission of North Carolina.

CHART A: 1983 NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY MAJOR DIVISION

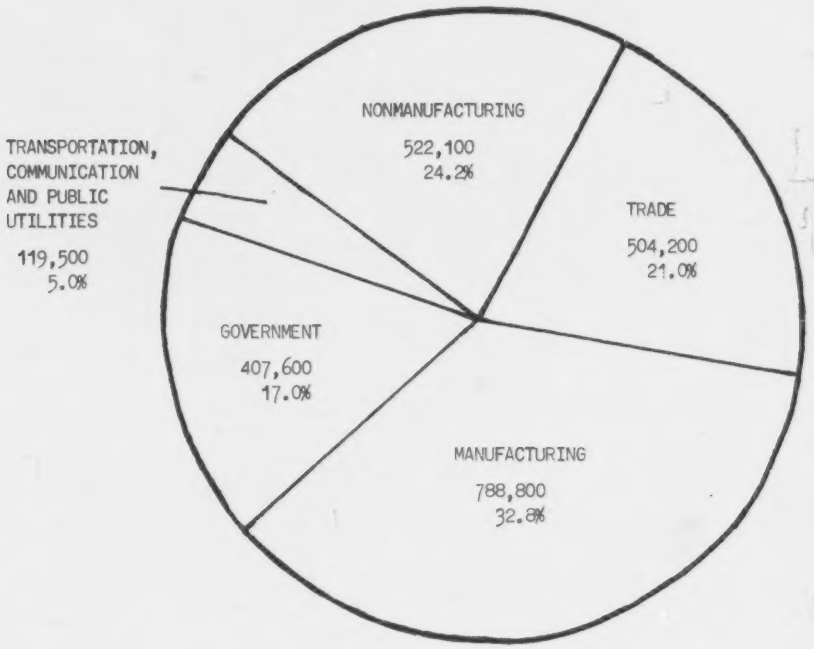


CHART B: NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT

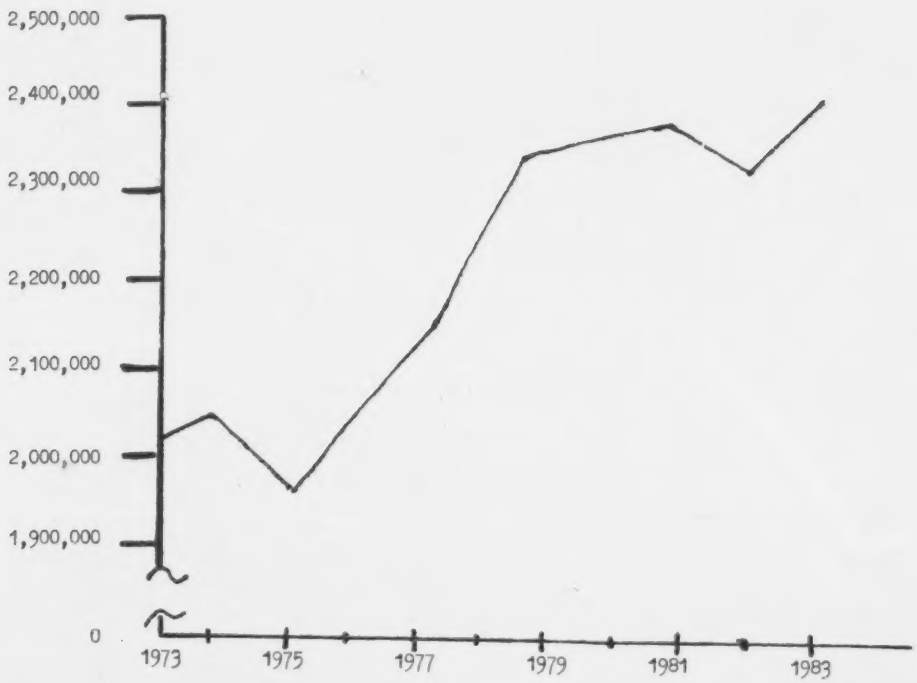
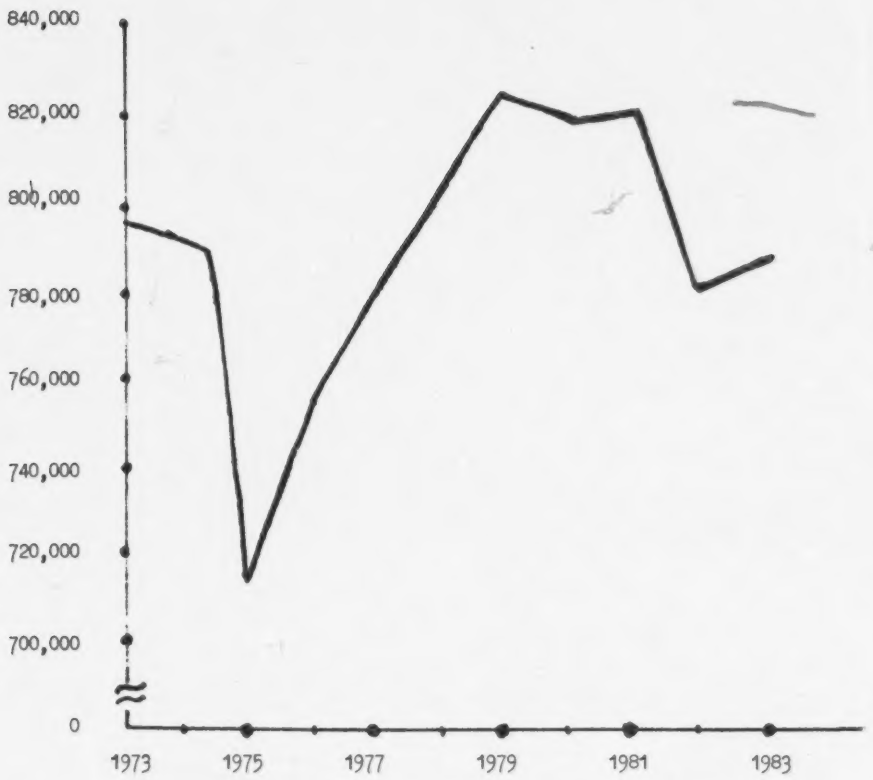


CHART C: MANUFACTURING WAGE AND SALARY EMPLOYMENT



METHODOLOGY

A questionnaire was mailed to sampled manufacturing establishments in order to obtain occupational data. The total occupational employment for an industry was then estimated from the responding establishments.

Sample

The sample was drawn using procedures outlined in the OES Survey Operations Manual. Establishments were divided into different size classes by number of employees. All establishments with more than 250 employees were sampled. Establishments in each smaller size class were sampled in proportion to the employment in the size class; however, no establishment with fewer than four employees was sampled. Employment in these establishments was accounted for in the next larger size class. Each unit that was sampled was assigned a weight according to the ratio of units sampled in that size class. For example, when all units in a size class were sampled, the weight was one. When the units were sampled at a ratio of one out of four, the sampled unit was given a weight of four. The weighted establishment then represented itself and three other establishments.

Collection

Data collection began in June, 1983 and ended in March, 1984. Two follow-up mailings, personal visits, or telephone calls were made to those establishments whose response was vital for statistical purposes, to those who had difficulty completing the questionnaire, or to those where clarification of the response was necessary.

Estimates

Data from the questionnaires were keypunched and loaded to tape. The tape was processed using the OES Survey Processing and Management Programs to sort and screen the data. The estimating program sorted the data into size class cells. The weighted employment of each occupation in each cell was then estimated individually and summed across all cells in order to produce the final occupational employment estimate for each industry.

Error

Two types of errors, sampling and non-sampling, can affect the results of a survey. Sampling error is the difference between the estimates developed from the sample data and the universe from which the sample was drawn. Sampling error is measurable and is expressed as relative error. The relative error shown in this publication is such that the chances are two out of three that the results of comparable universal data collection would not differ by more than the percentage shown. Non-sampling error can arise from faulty questionnaire design, inability to collect necessary data, inaccuracy of data collected, and ineffective processing techniques. Non-sampling error cannot be measured.

Publication

After the data file had been processed through the OES estimates programs, a computer printout was received which contained the estimated employment for each occupation, the relative error of the occupational estimate, the percent distribution of the occupational employment, the number of employees reported in each occupation, and the number of establishments which reported each occupation.

Industries were surveyed at the 3-digit SIC level; however, published data are at the 2-digit level of detail. Three-digit SIC's which demonstrated inadequate response were not included in the 2-digit summaries. The results of the hospital survey stand alone as SIC 806.

Occupational data were not published for industries when the industry employment was less than 1,000. The estimated employment for occupations was rounded to the nearest ten. The estimated employment was put in a residual category when the estimated employment for an occupation was less than 15 or less than 0.05 percent of the total group employment, when the relative error was more than 35 percent, or when an occupation was not reported by at least four establishments. Although they are not published here, the suppressed industry and occupation data will be included in the industry/occupation matrix.

Relative error is not applicable (N.A.) for residual categories, occupational group totals and total employment because it is not additive. The percent distribution was computed on the unrounded employment estimates; therefore, some occupations with the same published estimated employment may not have the same percent distribution. Six major occupational groups are listed for each industry. When there was no reported employment in an occupational group, the estimated employment is listed as zero. When the estimated employment for the occupational group was less than 15, the figure was not published.

NOTE: Occasionally the sum of the occupations will not equal the Total Employment of the Occupational Category because of rounding.

FOOD AND KINDRED PRODUCTS
(SIC 20, Except 201, 205, 207)

June, 1983

This major group includes those establishments engaged in the manufacture of food, beverages, and related products for human consumption. Prepared feeds for fowl and animals are included also.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	19,060	N.A.	100.0
Managers and Officers	1,110	N.A.	5.8
Financial Managers	60	11.7	0.3
Personnel and Labor Relations Managers	30	11.3	0.1
Purchasing Managers	40	32.8	0.2
Marketing, Advertising, and Public Relations	120	16.6	0.6
Administrative Services Managers	20	26.5	0.1
Industrial Production Managers	120	12.1	0.6
General Managers and Top Executives	630	6.3	3.3
Other Managers and Administrators	90	N.A.	0.5
Professional and Technical Workers	600	N.A.	3.1
Accountants and Auditors	130	12.1	0.7
Purchasing Agents and Buyers, Farm Products	30	25.8	0.2
Purchasing Agents and Buyers, except Farm Products	30	8.8	0.2
Personnel and Labor Relations Specialists	30	15.3	0.1
Other Management Support Workers	40	N.A.	0.2
Engineers	80	N.A.	0.4
Mechanical Engineers	50	14.1	0.3
Other Engineers	30	N.A.	0.1
Other Engineering Technicians and Technologists	20	N.A.	0.1
Chemists	40	15.9	0.2
Chemical Technicians and Technologists, except Health	100	8.1	0.5
Other Science Technicians and Technologists	40	N.A.	0.2
Computer Programmers	20	82.1	0.1
Other Professional, Paraprofessional, and Technical Workers	40	N.A.	0.2
Sales Workers	1,310	N.A.	6.9
Sales Supervisors	260	13.3	1.4
Other Sales Representatives, except Retail	880	N.A.	4.6
Cashiers	20	32.3	0.1
Other Sales and Related Workers	150	N.A.	0.8
Clerical Workers	2,060	N.A.	10.8
Clerical and Administrative Supervisors	30	18.0	0.2
Secretaries	240	5.3	1.3
Receptionists and Information Clerks	20	13.6	0.1

FOOD AND KINDRED PRODUCTS
(SIC 20, Except 201, 205, 207)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Typists	20	8.0	0.1
Personnel Clerks	20	8.0	0.1
Order Clerks	60	16.8	0.3
Bookkeeping, Accounting, and Auditing Clerks	440	7.4	2.3
Payroll and Timekeeping Clerks	50	8.4	0.2
Billing, Cost, and Rate Clerks	40	12.7	0.2
General Office Clerks	410	9.2	2.1
Office Machine Operators	150	N.A.	0.8
Billing, Posting, and Calculating Machine Operators	20	27.8	0.1
Computer Operators	30	32.1	0.2
Data Entry Keyers	100	8.8	0.5
Switchboard Operators	30	10.1	0.1
Production, Planning, and Expediting Clerks	30	5.2	0.2
Weighers, Measurers, Checkers, Samplers	80	11.8	0.4
Stock Clerks-Stockroom or Warehouse	100	10.6	0.5
Traffic, Shipping, and Receiving Clerks	280	11.6	1.5
Other Clerical and Administrative Workers	60	N.A.	0.4
Service Workers	390	N.A.	2.0
Service Supervisors	50	27.5	0.3
Guards and Watch Guards	30	11.8	0.1
Janitors and Cleaners	220	8.5	1.1
Other Service Workers	90	N.A.	0.5
Agriculture, Forestry, or Fishery Workers	320	N.A.	1.7
Graders and Sorters, Agriculture	150	21.1	0.8
Other Agriculture and Related Workers	170	N.A.	0.9
Production and Maintenance Workers	13,270	N.A.	69.6
Mechanics and Repairers Supervisors	40	16.9	0.2
Production Supervisors	810	6.4	4.2
Transportation and Material Moving Supervisors	20	30.6	0.1
Other Supervisors	80	N.A.	0.4
Production Inspectors	180	14.8	1.0
Mechanics and Repairers	1,300	N.A.	2.2
Machinery Maintenance Mechanics	410	7.2	2.2
Machinery Maintenance Workers	40	20.0	0.2
Maintenance Repairers, General Utility	350	7.2	1.8
Automative Mechanics	100	15.7	0.6
Bus, Truck, and Diesel Mechinics	40	21.3	0.2
Coin and Vending Machine Servicemen	270	12.4	1.4
Other Mechanics and Repairers	90	N.A.	0.5
Electricians	80	5.7	0.4
Other Construction Trades Workers	30	N.A.	0.1
Machinists	30	9.1	0.2
Food Batchmakers	120	15.3	0.6

FOOD AND KINDRED PRODUCTS
(SIC 20, Except 201, 205, 207)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Precision Food and Tobacco Workers	180	N.A.	0.9
Cooking Machine Operators and Tenders	100	16.1	0.5
Low Pressure Boiler Operators and Tenders	50	6.8	0.2
Dairy Processing Equipment Setters and Operators	130	13.4	0.7
Cutting and Slicing Machine Operators and Tenders	40	26.1	0.2
Cleaning and Pickling Equipment Operators and Setters	20	32.9	0.1
Separating and Filtering Machine Operators and Tenders	60	26.0	0.3
Crushing, Grinding, and Mixing Machine Operators and Tenders	340	7.7	1.8
Extruding, Forming, and Pressing Machine Operators and Tenders	40	19.7	0.2
Packaging and Filling Machine Operators and Tenders	1,420	5.8	7.4
Other Machine Operators and Tenders	390	N.A.	2.0
Cannery Workers	490	16.1	2.6
Meat, Poultry, and Fish Cutters, Hand	670	19.7	3.5
Other Hand Workers	150	N.A.	0.8
Other Plant and Systems Operators	90	N.A.	0.5
Truck Drivers, Heavy-inc. Tractor Trailer	730	9.7	3.8
Truck Drivers, Light-inc. Delivery and Route Workers	160	15.4	0.8
Driver/Sales Workers	2,160	8.5	11.4
Industrial Truck and Tractor Operators	540	6.9	2.9
Other Material Moving Equipment Operators	140	N.A.	0.7
Mechanic and Repairer Helpers	30	33.7	0.1
Machine Feeders and Offbearers	260	16.2	1.4
Material Movers, Hand	380	11.2	2.0
Hand Packers and Packagers	380	13.5	2.0
Vehicle Washers and Equipment Cleaners	80	21.1	0.4
Other Laborers	1,550	N.A.	8.1

1/ Details may not add to total because of rounding or data suppression.

TOBACCO MANUFACTURERS
(SIC 21)

June, 1983

Establishments in this major group are involved in the manufacture of cigarettes, cigars, smoking and chewing tobacco, and snuff. The stemming and redrying of tobacco are included in this category.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	23,440	N.A.	100.0
Managers and Officers	1,030	N.A.	4.3
Financial Managers	60	3.9	0.2
Personnel and Labor Relations Managers	20	0.0	0.1
Purchasing Managers	30	0.0	0.1
Industrial Production Managers	150	12.4	0.6
General Managers and Top Executives	200	7.9	0.9
Other Managers and Administrators	570	N.A.	2.4
Professional and Technical Workers	1,360	N.A.	5.8
Accountants and Auditors	70	4.0	0.3
Other Financial Specialists	40	N.A.	0.2
Purchasing Agents and Buyers, Farm Products	320	6.5	1.4
Purchasing Agents and Buyers, except Farm Products	30	0.0	0.1
Personnel and Labor Relations Specialists	20	0.0	0.1
Other Management Support Workers	30	N.A.	0.1
Engineers	190	N.A.	0.8
Industrial Engineers	30	3.8	0.1
Mechanical Engineers	100	1.4	0.4
Other Engineers	60	N.A.	0.3
Drafters	40	3.4	0.2
Other Engineering Technicians and Technologists	160	N.A.	0.7
Chemists	120	8.0	0.5
Other Life Scientists	30	N.A.	0.2
Other Science Technicians and Technologists	260	N.A.	1.1
Other Health Professionals	20	N.A.	0.1
Other Professional, Paraprofessional and Technical Workers	30	N.A.	0.1
Sales Workers	2,260	N.A.	9.6
Clerical Workers	1,460	N.A.	6.3
Clerical and Administrative Supervisors	60	11.7	0.3
Secretaries	390	4.5	1.7
Typists	40	3.7	0.2
Personnel Clerks	20	6.1	0.1
Procurement Clerks	40	6.0	0.2
Bookkeeping, Accounting, and Auditing Clerks	160	10.2	0.7
Payroll and Timekeeping Clerks	110	5.7	0.5
Billing, Cost, and Rate Clerks	30	15.8	0.1
General Office Clerks	160	3.8	0.7

TOBACCO MANUFACTURERS
(SIC 21)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Office Machine Operators	40	N.A.	0.2
Data Entry Keyers	20	26.4	0.1
Other Office Machine Operators	20	N.A.	0.1
Stock Clerks-Stockroom or Warehouse	60	5.4	0.2
Traffic, Shipping, and Receiving Clerks	50	11.5	0.2
Other Clerical and Administrative Workers	300	N.A.	1.3
Service Workers	780	N.A.	3.3
Service Supervisors	20	0.0	0.1
Guards and Watch Guards	180	3.5	0.8
Janitors and Cleaners	490	12.0	2.1
Other Service Workers	90	N.A.	0.4
Production and Maintenance Workers	16,550	N.A.	70.6
Mechanics and Repairers Supervisors	100	15.3	0.4
Production Supervisors	960	1.9	4.1
Laborers Supervisors	30	6.2	0.1
Other Supervisors	40	N.A.	0.2
Precision Inspectors, Testers, and Graders	340	3.7	1.4
Production Inspectors	1,160	3.1	5.0
Mechanics and Repairers	2,920	N.A.	12.6
Machinery Maintenance Mechanics	1,720	1.5	7.3
Millwrights	160	9.4	0.7
Machinery Maintenance Workers	710	3.9	3.0
Maintenance Repairers, General Utility	60	11.5	0.3
Automotive Mechanics	30	4.9	0.1
Heating, Air Conditioning, and Refrigeration Mechanics	20	11.1	0.1
Other Mechanics and Repairers	220	N.A.	1.1
Carpenters	60	4.2	0.2
Electricians	160	3.8	0.7
Painters and Paperhangers	30	0.0	0.1
Plumbers and Pipefitters	120	2.5	0.5
Machinists	260	3.5	1.1
Sheet Metal Workers	70	4.1	0.3
Other Precision Metal Workers	80	N.A.	0.3
Other Precision Food and Tobacco Workers	270	N.A.	1.1
Roasting and Related Machine Operators and Tenders	40	9.4	0.2
Low Pressure Boiler Operators and Tenders	30	8.4	0.1
Cutting and Slicing Machine Operators and Tenders	80	2.4	0.4
Packaging and Filling Machine Operators and Tenders	2,110	3.2	9.0
Other Machine Operators and Tenders	3,340	N.A.	14.2
Truck Drivers, Heavy-inc. Tractor Trailer	100	3.5	0.4
Truck Drivers, Light-inc. Delivery and Route Workers	120	6.5	0.5

TOBACCO MANUFACTURERS
(SIC 21)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Industrial Truck and Tractor Operators	790	3.2	3.4
Material Movers, Hand	310	22.9	1.3
Other Laborers	3,030	N.A.	12.9

1/ Details may not add to totals because of rounding or data suppression.

TEXTILE MILL PRODUCTS
(SIC 22)

April, 1983

This major group includes establishments engaged in performing any of the following operations: (1) preparing fiber and manufacturing of yarn, thread, braids, twine, and cordage; (2) manufacturing broad and narrow woven fiber, knit fabric, and carpets and rugs from yarn; (3) dyeing and finishing fiber, yarn, fabric, and knit apparel; (4) coating, waterproofing, or otherwise treating fabric; (5) the integrated manufacture of knit apparel and other finished articles from yarn; and (6) the manufacture of felt and lace goods; nonwoven fabrics and miscellaneous textiles. This classification includes contract mills (processes materials owned by others) and integrated mills (buys raw materials, manufactures, and sells finished textile goods).

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	222,240	N.A.	100.0
Managers and Officers	6,510	N.A.	3.0
Financial Managers	330	15.3	0.2
Personnel and Labor Relations Managers	440	7.5	0.2
Purchasing Managers	150	10.6	0.1
Marketing, Advertising, and Public Relations Managers	200	19.2	0.1
Administrative Services Managers	200	12.8	0.1
Industrial Production Managers	1,480	7.5	0.7
General Managers and Top Executives	2,940	7.3	1.3
Other Managers and Administrators	770	N.A.	0.3
Professional and Technical Workers	5,290	N.A.	2.4
Accountants and Auditors	470	14.9	0.2
Purchasing Agents and Buyers, Except Farm Products	180	10.6	0.1
Personnel and Labor Relations specialists	330	7.2	0.1
Other Management Support Workers	400	N.A.	0.2
Engineers	1,020	N.A.	0.4
Industrial Engineers	570	5.4	0.2
Mechanical Engineers	300	11.4	0.1
Other Engineers	150	N.A.	0.1
Industrial Engineering Technicians and Technologists	450	9.2	0.2
Other Engineering Technicians and Technologists	110	N.A.	0.1
Chemists	160	19.8	0.1
Chemical Technicians and Technologists, except Health	550	14.3	0.2
EDP Systems Analysts	210	17.8	0.1
Computer Programmers	280	16.7	0.1
Teachers and Instructors, Vocational Education	150	19.8	0.1
Health Practitioners and Related Health Occupations	230	6.6	0.1
Other Professional, Paraprofessional, and Technical Workers	750	N.A.	0.3

TEXTILE MILL PRODUCTS
(SIC 22)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Sales Workers	850	N.A.	0.4
Sales Supervisors	260	21.1	0.1
Sales Representatives, Scientific-except Retail	120	20.0	0.1
Other Sales and Related Workers	470	N.A.	0.2
Clerical Workers	15,010	N.A.	6.8
Clerical and Administrative Supervisors	660	9.1	0.3
Secretaries	1,470	7.3	0.7
Reception and Information Clerks	220	8.9	0.1
Typists	290	20.0	0.1
Personnel Clerks	420	5.8	0.2
Order Clerks	380	12.8	0.2
Procurement Clerks	160	26.5	0.1
Bookkeeping, Accounting, and Auditing Clerks	850	11.3	0.4
Payroll and Timekeeping Clerks	830	6.3	0.4
Billing, Cost, and Rate Clerks	430	10.7	0.2
General Office Clerks	1,540	10.8	0.7
Office Machine Operators	990	N.A.	0.4
Billing, Posting, and Calculating Machine Operators	250	27.8	0.1
Computer Operators	230	9.0	0.1
Data Entry Keyers	510	9.4	0.2
Switchboard Operators	210	9.6	0.1
Production, Planning, and Expediting Clerks	1,040	5.9	0.5
Weighers, Measurers, Checkers, Samplers	620	15.6	0.3
Marking Clerks	120	33.8	0.1
Stock Clerks-Stockroom or Warehouse	1,160	8.6	0.5
Traffic, Shipping, and Receiving Clerks	2,160	7.0	1.0
Other Clerical and Administrative Workers	1,460	N.A.	0.7
Service Workers	4,590	N.A.	2.0
Service Supervisors	250	20.3	0.1
Guards and Watch Guards	770	9.6	0.3
Janitors and Cleaners	2,190	8.9	1.0
Other Cleaning and Building Service Workers	1,040	N.A.	0.5
Other Service Workers	340	N.A.	0.1
Production and Maintenance Workers	189,990	N.A.	85.5
Mechanics and Repairers Supervisors	580	18.4	0.3
Construction Trades Supervisors	360	30.4	0.2
Production Supervisors	7,370	4.3	3.3
Transportation and Material Moving Supervisors	150	17.8	0.1
Laborer Supervisors	320	18.5	0.1
Precision Inspectors, Testers, and Graders	740	16.8	0.3
Production Inspectors	11,030	7.8	5.0

TEXTILE MILL PRODUCTS
(SIC 22)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Mechanics and Repairers	15,400	N.A.	6.9
Machinery Maintenance Mechanics, Textile Machines	8,390	5.4	3.8
Machinery Maintenance Mechanics, Sewing Machines	490	15.0	0.2
Other Machinery Maintenance Mechanics	660	N.A.	0.3
Millwrights	280	11.8	0.1
Machinery Maintenance Workers	990	13.3	0.4
Maintenance Repairers, General Utility	2,350	15.7	1.1
Heating, Air Conditioning, and Refrigeration Mechanics	480	8.1	0.2
Menders	1,290	15.4	0.6
Other Mechanics and Repairers	470	N.A.	0.2
Carpenters	370	9.1	0.2
Electricians	1,230	6.2	0.6
Painters and Paperhangers	180	13.3	0.1
Other Construction Trades Workers	140	N.A.	0.1
Machinists	370	12.1	0.2
Precision Dyers	320	27.5	0.1
Other Precision Textile Workers	2,630	N.A.	1.2
Other Printing and Related Setters and Set-up Operators	460	N.A.	0.2
Other Printing and Related Machine Operators and Tenders	400	N.A.	0.2
Textile machine Setters and Set-up Operators	14,260	9.6	6.4
Textile Machine Operators and Tenders	66,330	3.1	29.8
Synthetic or Glass Fiber Extruding Machine Operators and Tenders	710	29.9	0.3
Textile Draw-Out Machine Operators and Tenders	5,800	8.4	2.6
Textile Bleaching and Dyeing Machine Operators and Tenders	5,960	12.2	2.7
Sewing Machine Operators, Garment	12,380	10.0	5.6
Sewing Machine Operators, Non-garment	2,710	26.3	1.2
Low Pressure Boiler Operators and Tenders	270	7.6	0.1
Cutting and Slicing Machine Operators and Tenders	340	20.2	0.2
Crushing, Grinding and Mixing Machine Operators and Tenders	180	20.4	0.1
Packaging and Filling Machine Operators and Tenders	740	17.0	0.3
Other Machine Setters and Set-up Operators	140	N.A.	0.1
Other Machine Operators and Tenders	3,980	N.A.	1.8
Portable Machine Cutters	410	24.5	0.2
Other Hand Workers	4,240	N.A.	1.9
Other Plant and System Operators	240	N.A.	0.1
Truck Drivers, Heavy-inc. Tractor Trailer	460	11.2	0.2

TEXTILE MILL PRODUCTS
(SIC 22)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Truck Drivers, Light-inc. Delivery and Route Workers	220	10.8	0.1
Industrial Truck and Tractor Operators	2,760	6.9	1.2
Conveyor Operators and Tenders	180	19.6	0.1
Other Material Moving Equipment Operators	200	N.A.	0.1
Mechanic and Repairer Helpers	580	22.4	0.3
Construction Trades Worker Helpers	130	27.6	0.1
Machine Feeders and Offbearers	4,070	7.9	1.8
Material Movers, Hand	4,230	10.5	1.9
Hand Packers and Packagers	5,010	18.6	2.2
Other Laborers	11,410	N.A.	5.1

1/ Details may not add to totals because of rounding or data suppression.

APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS
(SIC 23)

April, 1983

This major group includes those establishments primarily engaged in producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics. Other materials in clothing making such as leather, rubber, plastics, and furs are included in this group.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	84,250	N.A.	100.0
Managers and Officers	1,910	N.A.	2.3
Financial Managers	110	11.8	0.1
Personnel and Labor Relations Managers	110	9.2	0.1
Marketing, Advertising, and Public Relations Managers	120	9.2	0.1
Administrative Services Managers	40	21.2	0.1
Industrial Production Managers	370	13.4	0.4
General Managers and Top Executives	840	8.4	1.0
Other Managers and Administrators	320	N.A.	0.4
Professional and Technical Workers	990	N.A.	1.2
Accountants and Auditors	50	12.9	0.1
Other Financial Specialists	90	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	50	16.7	0.1
Personnel and Labor Relations Specialists	50	16.5	0.1
Other Management Support Workers	70	N.A.	0.1
Industrial Engineers	170	10.2	0.2
Industrial Engineering Technicians and Technologists	90	10.0	0.1
EDP Systems Analysts	60	6.1	0.1
Computer Programmers	80	7.4	0.1
Teachers and Instructors, Vocational	50	28.2	0.1
Designers	120	18.4	0.1
Other Professional, Paraprofessional and Technical Workers	110	N.A.	0.1
Sales Workers	750	N.A.	0.9
Sales Supervisors	110	30.2	0.1
Other Sales Representatives, except Retail	310	N.A.	0.4
Other Sales Workers	330	N.A.	0.4
Clerical Workers	5,380	N.A.	6.4
Clerical and Administrative Supervisors	330	12.2	0.4
Secretaries	450	8.2	0.5
Reception and Information Clerks	70	11.7	0.1
Typists	100	8.3	0.1
Personnel Clerks	80	8.8	0.1
File Clerks	50	9.3	0.1
Order Clerks	250	8.9	0.3
Bookkeeping, Accounting, and Auditing Clerks	250	11.1	0.3

APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS
(SIC 23)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Payroll and Timekeeping Clerks	450	5.6	0.5
Billing, Cost, and Rate Clerks	110	16.9	0.1
General Office Clerks	680	8.6	0.8
Office Machine Operators	310	N.A.	0.4
Computer Operators	90	10.0	0.1
Data Entry Keyers	160	14.0	0.2
Other Office Machine Operators	60	N.A.	0.1
Switchboard Operators	70	10.1	0.1
Production, Planning, and Expediting Clerks	240	11.2	0.3
Weighers, Measurers, Checkers, Samplers	70	27.9	0.1
Marking Clerks	130	30.4	0.2
Stock Clerks-Stockroom or Warehouse	370	23.4	0.4
Traffic, Shipping, and Receiving Clerks	1,120	14.5	1.3
Other Clerical and Administrative Workers	250	N.A.	0.3
Service Workers	1,220	N.A.	1.5
Service Supervisors	300	21.8	0.4
Guards and Watch Guards	100	16.3	0.1
Janitors and Cleaners	600	6.2	0.7
Other Service Workers	220	N.A.	0.3
Production and Maintenance Workers	74,000	N.A.	87.8
Mechanical and Repairers Supervisors	100	12.3	0.1
Production Supervisors	2,230	5.4	2.6
Laborers Supervisors	180	25.2	0.2
Other Supervisors	90	N.A.	0.1
Precision Inspectors, Testers, and Graders	220	26.4	0.3
Production Inspectors	4,200	6.7	5.0
Mechanics and Repairers	1,560	N.A.	1.8
Machinery Maintenance Mechanics, Textile Machines	210	17.6	0.2
Machinery Maintenance Mechanics, Sewing Machines	900	5.1	1.1
Other Machinery Maintenance Mechanics	50	N.A.	0.1
Machinery Maintenance Workers	50	33.8	0.1
Maintenance Repairers, General Utility	190	14.8	0.2
Menders	160	17.0	0.2
Other Construction Trades Workers	80	N.A.	0.1
Other Precision Metal Workers	70	N.A.	0.1
Fabric Pattern Makers	600	10.8	0.7
Pressers	270	32.1	0.3
Other Precision Textile Workers	900	28.4	1.0
Screen Printing Machine Setters and Set-up Operators	250	34.7	0.3
Printing Press Machine Operators and Tenders	50	31.9	0.1
Other Printing and Related Machine Operators and Tenders	60	N.A.	0.1
Textile Machine Operators and Tenders	1,490	24.6	1.8

APPAREL AND OTHER FINISHED PRODUCTS
MADE FROM FABRICS AND SIMILAR MATERIALS
(SIC 23)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Sewing Machine Operators, Garment	42,820	2.0	50.8
Sewing Machine Operators, Non-garment	5,010	9.1	5.9
Pressing Machine Operators and Tenders	2,080	11.0	2.5
Cutting and Slicing Machine Operators and Tenders	180	30.8	0.2
Packaging and Filling Machine Operators and Tenders	190	19.8	0.2
Other Machine Setters and Set-up Operators	380	N.A.	0.4
Other Machine Operators and Tenders	610	N.A.	0.7
Pressers, Hand	750	20.8	0.9
Cutters and Trimmers, Hand	1,020	12.7	1.2
Portable Machine Cutters	880	10.5	1.0
Other Hand Workers	1,620	N.A.	1.9
Other Plant and System Operators	50	N.A.	0.1
Truck Drivers, Light-inc. Delivery and Route Workers	70	17.3	0.1
Other Motor Vehicle Operators	120	N.A.	0.1
Industrial Truck and Tractor Operators	140	17.9	0.2
Other Material Moving Equipment Operators	70	N.A.	0.1
Machine Feeders and Offbearers	180	32.6	0.2
Material Movers, Hand	1,580	10.0	1.9
Hand Packers and Packagers	1,880	13.9	2.2
Other Laborers	2,020	N.A.	2.4

1/ Details may not add to totals because of rounding or data suppression.

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
(SIC 24)

May, 1983

Establishments in this group are primarily engaged in cutting timber and pulpwood; sawmills, lath mills, shingle mills, cooperage stock mills, planing mills, plywood mills, and veneer mills. Also included in this category are establishments that manufacture finished articles made entirely or mainly of wood or wood substitutes.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	33,800	N.A.	100.0
Managers and Officers	1,440	N.A.	4.3
Financial Managers	40	11.8	0.1
Personnel and Labor Relations Managers	20	12.9	0.1
Purchasing Managers	30	9.4	0.1
Marketing, Advertising and Public Relations Managers	30	13.2	0.1
Adminsitrative Services Managers	20	22.3	0.1
Industrial Productions Managers	70	15.4	0.2
General Managers and Top Executives	1,210	4.2	3.6
Other Managers and Administrators	20	N.A.	0.1
Professional and Technical Workers	370	N.A.	1.1
Accountants and Auditors	110	15.2	0.3
Purchasing Agents and Buyers, except Farm Products	40	17.9	0.1
Cost Estimators	20	18.4	0.1
Others Engineers	40	N.A.	0.1
Drafters	40	17.1	0.1
Forestry and Conservation Scientists	20	27.6	0.1
Other Professional, Paraprofessional, and Technical Workers	100	N.A.	0.3
Sales Workers	520	N.A.	1.5
Sales Supervisors	80	22.3	0.2
Sales Representatives, Scientific-except Retail	100	19.0	0.3
Other Sales Representatives, except Retail	300	N.A.	0.9
Other Sales and Related Workers	40	N.A.	0.1
Clerical Workers	1,780	N.A.	5.3
Clerical and Administrative Supervisors	20	14.0	0.1
Secretaries	470	6.8	1.4
Receptionists and Information Clerks	20	9.5	0.1
Order Clerks	20	15.0	0.1
Bookkeeping, Accounting, and Auditing Clerks	380	7.9	1.1
Payroll and Timekeeping Clerks	30	9.8	0.1
Billing, Cost, and Rate Clerks	20	13.3	0.1
General Office Clerks	350	8.0	1.0
Office Machine Operators	40	N.A.	0.1

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
(SIC 24)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Computer Operators	20	27.4	0.1
Data Entry Keyers	20	7.4	0.1
Switchboard Operators	20	11.2	0.1
Production, Planning, and Expediting Clerks	20	15.5	0.1
Weighers, Measurers, Checkers, Samplers	20	23.5	0.1
Stock Clerks-Stockroom or Warehouse	30	8.8	0.1
Traffic, Shipping, and Receiving Clerks	280	9.1	0.8
Other Clerical and Administrative Workers	60	N.A.	0.2
Service Workers	580	N.A.	1.7
Guards and Watch Guards	240	8.4	0.7
Janitors and Cleaners	320	31.9	0.9
Other Cleaners and Building Service Workers	20	N.A.	0.1
Agriculture, Forestry or Fishery Workers	3,710	N.A.	11.0
Supervisors	150	11.4	0.4
Fallers and Buckers	1,130	5.9	3.3
Choke Setters	70	16.4	0.2
Log Handling Equipment Operators	760	8.8	2.2
Logging Tractor Operators	1,280	6.3	3.8
Other Logging Workers	70	N.A.	0.2
Log Graders and Scalers	210	11.9	0.6
Other Agriculture, Forestry, or Fishery Workers	40	N.A.	0.1
Production and Maintenance Workers	25,400	N.A.	75.1
Mechanics and Repairers Supervisors	60	12.2	0.2
Construction Trades Supervisors	80	22.2	0.2
Production Supervisors	1,020	6.1	3.0
Laborers Supervisors	70	23.1	0.2
Other Supervisors	20	N.A.	0.1
Production Inspectors	870	9.8	2.6
Mechanics and Repairers	1,150	N.A.	3.4
Machinery Maintenance Mechanics	290	13.0	0.9
Millwrights	80	18.9	0.2
Machinery Maintenance Workers	140	11.9	0.4
Maintenance Repairers, General Utility	480	6.8	1.4
Automotive Mechanics	60	33.5	0.2
Bus, Truck, and Diesel Mechanics	20	17.9	0.1
Mobile Heavy Equipment Mechanics	50	18.0	0.1
Installers and Repairers, Mobile Homes and Trailers	30	25.1	0.1
Carpenters	1,760	11.6	5.2
Electricians	150	6.3	0.4
Painters and Paperhangers	30	30.3	0.1
Plumbers and Pipefitters	120	10.2	0.4
Other Construction Trades Workers	370	N.A.	1.0
Machinists	20	11.1	0.1

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
(SIC 24)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percenr 1/ Distribution
Tool Grinders, Filers, and Sharpeners	60	15.8	0.2
Other Precision Metal Workers	120	N.A.	0.4
Wood Pattern and Model Makers	50	21.1	0.1
Wood Machinists	1,060	14.6	3.1
Cabinet Makers and Bench Carpenters	700	19.1	2.1
Furniture Finishers	150	14.9	0.4
Other Precision Woodworkers	180	N.A.	0.5
Other Precision Workers	40	N.A.	0.1
Other Metal and Plastic Machine Operators and Tenders	210	N.A.	0.6
Sawing Machine Setters and Set-up Operators	240	12.8	0.7
Head Sawyers	350	11.5	1.0
Sawing Machine Operators and Tenders	1,680	5.7	5.0
Woodworking Machine Setters and Set-up Operators	1,120	11.1	3.3
Woodworking Machine Operators and Tenders	1,940	9.0	5.7
Sewing Machine Operators, Non-garment	40	27.8	0.1
Furnace, Kiln, and Oven Operators	380	15.7	1.1
Low Pressure Boiler Operators and Tenders	100	18.1	0.3
Cutting and Slicing Machine Operators and Tenders	120	34.3	0.4
Painting and Related Machine Setters and Set-up Operators	150	16.4	0.4
Painting and Related Operators and Tenders	340	18.2	1.0
Cementing and Gluing Machine Operators and Tenders	350	12.8	1.0
Crushing, Grinding, and Mixing Machine Operators and Tenders	40	13.9	0.1
Packaging and Filling Machine Operators and Tenders	130	24.1	0.4
Other Machine Setters and Set-up Operators	60	N.A.	0.2
Other Machine Operators and Tenders	180	N.A.	0.5
Welders and Cutters	20	33.2	0.1
Grinding and Polishing Workers, Hand	290	24.7	0.8
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	890	20.8	2.6
Other Hand Workers	120	N.A.	0.3
Truck Drivers, Heavy-inc. Tractor Trailer	1,520	4.6	4.5
Truck Drivers, Light-inc. Delivery and Route Workers	40	18.8	0.1
Other Transportation Workers	20	N.A.	0.1
Hoist and Winch Operators	20	24.0	0.1
Industrial Truck and Tractor Operators	900	6.3	2.7
Other Material Moving Equipment Operators	60	N.A.	0.2
Construction Trades Workers	560	25.6	1.7

LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE
(SIC 24)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Machine Feeders and Offbearers	2,720	7.0	8.0
Material Movers, Hand	810	12.8	2.4
Hand Packers and Packagers	600	16.2	1.8
Other Laborers	1,320	N.A.	3.8

1/ Details may not add to totals because of rounding or data suppression.

FURNITURE AND FIXTURES
(SIC 25, Except 251)

May, 1983

Establishments in this group are engaged in the manufacture of office, public building, and restaurant furniture, and office and store fixtures. This group does not include hospital, laboratory, beauty, or barber shop furniture makers.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	8,930	N.A.	100.0
Managers and Officers	400	N.A.	4.5
Financial Managers	20	24.9	0.2
Personnel and Labor Relations Managers	20	14.4	0.2
General Managers and Top Executives	240	13.5	2.7
Other Managers and Administrators	120	N.A.	1.4
Professional and Technical Workers	250	N.A.	2.8
Accountants and Auditors	20	15.6	0.3
Purchasing Agents and Buyers, except Farm Products	20	14.9	0.2
Personnel and Labor Relations Specialists	20	21.1	0.2
Other Management Support Workers	20	N.A.	0.2
Engineers	80	N.A.	0.9
Industrial Engineers	40	23.1	0.4
Mechanical Engineers	20	29.2	0.2
Other Engineers	20	N.A.	0.2
Drafters	30	15.6	0.3
Other Engineering Technicians and Technologists	20	0.0	0.2
Designers	20	20.0	0.2
Other Professional, Paraprofessional, and Technical Workers	20	N.A.	0.3
Sales Workers	110	N.A.	1.2
Sales Representatives, Scientific, except Retail	20	16.6	0.2
Other Sales Representatives, except Retail	50	N.A.	0.5
Other Sales and Related Workers	40	N.A.	0.5
Clerical Workers	740	N.A.	8.2
Secretaries	90	13.7	1.1
Personnel Clerks	20	27.6	0.2
Order Clerks	40	16.6	0.4
Bookkeeping, Accounting, and Auditing Clerks	70	13.0	0.8
Payroll and Timekeeping Clerks	30	20.8	0.3
Billing, Cost, and Rate Clerks	20	17.2	0.2
General Office Clerks	100	17.8	1.1
Data Entry Keyers	30	17.8	0.3
Switchboard Operators	20	15.3	0.2
Production, Planning, and Expediting Clerks	80	22.6	0.9
Stock Clerks-Stockroom or Warehouse	30	25.4	0.3
Traffic, Shipping, and Receiving Clerks	100	12.5	1.2
Other Clerical and Administrative Workers	110	N.A.	1.2

FURNITURE AND FIXTURES
(SIC 25, Except 251)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Service Workers	140	N.A.	1.5
Guards and Watch Guards	40	29.1	0.4
Janitors and Cleaners	80	17.0	0.9
Other Service Workers	20	N.A.	0.2
Production and Maintenance Workers	7,290	N.A.	81.6
Production Supervisors	340	9.1	3.8
Precision Inspectors, Testers, and Graders	20	25.5	0.2
Production Inspectors	200	22.2	2.3
Mechanics and Repairers	170	N.A.	1.9
Maintenance Repairers, General Utility	100	18.5	1.1
Other Mechanics, Installers and Repairers	70	N.A.	0.8
Other Construction Trades Workers	100	N.A.	1.1
Tool and Die Makers	20	26.5	0.2
Wood Pattern and Model Makers	30	21.4	0.3
Wood Machinists	190	11.8	2.2
Cabinetmakers and Bench Carpenters	290	14.1	3.3
Furniture Finishers	380	31.4	4.3
Other Precision Woodworkers	210	N.A.	2.3
Upholsterers	230	32.3	2.6
Other Precision Workers	90	N.A.	1.0
Drilling Machine Setters and Set-up Operators, Metal and Plastic	20	5.6	0.3
Machine Tool Cutting Operators and Tenders	40	14.0	0.5
Punching Machine Setters and Set-up Operators, Metal and Plastic	30	26.0	0.3
Press Machine Setters and Set-up Operators, Metal and Plastic	40	19.2	0.4
Machine Forming Operators and Tenders, Metal and Plastic	60	18.0	0.7
Welding Machine Operators and Tenders	170	12.9	1.9
Sawing Machine Setters and Set-up Operators	390	20.9	4.4
Woodworking Machine Setters and Set-up Operators	210	28.9	2.3
Woodworking Machine Operators and Tenders	340	15.5	3.8
Sewing Machine Operators, Non-garment	150	31.3	1.7
Painting and Related Machine Setters and Set-up Operators	40	15.4	0.4
Painting and Related Machine Operators and Tenders	90	33.1	1.1
Cementing and Gluing Machine Operators and Tenders	60	33.4	0.7
Other Machine Setters and Set-up Operators	80	N.A.	0.9
Other Machine Operators and Tenders	80	N.A.	0.9
Cutters and Trimmers, Hand	80	30.5	0.9
Grinding and Polishing Workers, Hand	280	34.6	3.2
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	1,190	13.2	13.3

FURNITURE AND FIXTURES
(SIC 25, Except 251)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Hand Workers	500	N.A.	3.1
Truck Drivers, Heavy-inc. Tractor Trailer	40	20.8	0.5
Truck Drivers, Light-inc. Delivery and Route Workers	20	32.7	0.2
Industrial Truck and Tractor Operators	90	21.4	1.0
Other Material Moving Equipment Operators	30	N.A.	0.3
Material Movers, Hand	200	24.1	2.3
Hand Packers and Packagers	130	21.8	1.4
Other Laborers	660	N.A.	7.0

1/ Details may not add to totals due to rounding or data suppression.

PAPER AND ALLIED PRODUCTS
(SIC 26)

April, 1983

This major grouping includes those establishments primarily engaged in the manufacture of pulps from wood, cellulose fibers, and rags; the manufacture of paper and paperboard into converted products such as paper bags, boxes, and envelopes. It does not include abrasive paper, carbon paper, photosensitized or blueprint paper.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	22,080	N.A.	100.0
Managers and Officers	860	N.A.	3.9
Financial Managers	60	15.8	0.3
Personnel and Labor Relations Managers	40	5.7	0.2
Marketing, Advertising, and Public Relations Managers	50	15.4	0.2
Industrial Production Managers	80	13.6	0.4
General Managers and Top Executives	480	11.8	2.1
Other Managers and Administrators	150	N.A.	0.7
Professional and Technical Workers	1,060	N.A.	4.8
Accountants and Auditors	100	11.1	0.4
Budget Analysts	20	10.2	0.1
Other Fianacial Specialists	20	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	60	12.8	0.3
Personnel and Labor Relations Specialists	120	24.8	0.6
Cost Estimators	30	15.1	0.1
Other Management Support Workers	20	N.A.	0.1
Engineers	240	N.A.	1.1
Chemical Engineers	60	22.2	0.3
Electrical and Electronic Engineers	20	12.2	0.1
Industrial Engineers	30	8.3	0.1
Mechanical Engineers	50	14.7	0.2
Other Engineers	80	N.A.	0.4
Drafters	20	24.0	0.1
Other Engineering Technicians and Technologists	70	N.A.	0.3
Chemists	30	19.9	0.1
Other Science Technicians and Technologists	120	N.A.	0.5
EDP Systems Analysts	20	12.0	0.1
Computer Programmers	50	26.7	0.2
Health Practitioners and Related Health Occupations	20	0.0	0.1
Designers	50	15.3	0.2
Other Professional, Paraprofessional, and Technical Workers	70	N.A.	0.2
Sales Workers	530	N.A.	2.3
Sales Supervisors	30	33.3	0.1
Sales Representatives, Scientific-except Retail	170	18.7	0.8

PAPER AND ALLIED PRODUCTS
(SIC 26)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Sales Representatives, except Retail	300	N.A.	1.3
Other Sales and Related Workers	30	N.A.	0.1
Clerical Workers	1,870	N.A.	8.4
Clerical and Administrative Supervisors	80	14.1	0.4
Secretaries	340	7.6	1.5
Stenographers	40	17.8	0.1
Typists	50	19.5	0.2
Personnel Clerks	30	5.1	0.1
Order Clerks	60	11.4	0.3
Procurement Clerks	20	5.0	0.1
Bookkeeping, Accounting, and Auditing Clerks	180	6.8	0.8
Payroll and Timekeeping Clerks	40	6.9	0.2
Billing, Cost, and Rate Clerks	60	12.9	0.3
General Office Clerks	180	13.9	0.8
Office Machine Operators	140	N.A.	0.7
Billing, Posting, and Calculating Machine Operators	20	19.0	0.1
Computer Operators	40	16.6	0.2
Data Entry Keyers	40	6.4	0.2
Other Office Machine Operators	40	N.A.	0.2
Switchboard Operators	20	11.2	0.1
Production, Planning, and Expediting Clerks	180	16.2	0.8
Weighers, Measurers, Checkers, Samplers	30	20.4	0.1
Stock Clerks-Stockroom or Warehouse	80	11.2	0.4
Traffic, Shipping, and Receiving Clerks	250	8.0	1.1
Other Clerical and Administrative Workers	90	N.A.	0.4
Service Workers	270	N.A.	1.2
Service Supervisors	30	25.3	0.1
Guards and Watch Guards	40	9.5	0.2
Janitors and Cleaners	200	4.9	0.9
Agriculture, Forestry, or Fishery Workers	280	N.A.	1.3
Production and Maintenance Workers	17,210	N.A.	78.0
Mechanics and Repairers Supervisors	150	18.7	0.7
Production Supervisors	920	7.2	4.1
Transportation and Material Moving Supervisors	60	28.2	0.3
Laborers Supervisors	60	16.2	0.3
Other Supervisors	250	N.A.	1.1
Precision Inspectors, Testers, and Graders	100	20.9	0.4
Production Inspectors	450	13.2	2.0
Mechanics and Repairers	1,520	N.A.	6.8
Machinery Maintenance Mechanics, Water or Power Generation Plant	70	18.9	0.3

PAPER AND ALLIED PRODUCTS
(SIC 26)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Machinery Maintenance Mechanics	80	N.A.	0.4
Millwrights	400	4.9	1.8
Machinery Maintenance Workers	80	16.3	0.4
Maintenance Repairers, General Utility	560	9.6	2.5
Automotive Mechanics	40	17.1	0.2
Bus, Truck, and Diesel Mechanics	20	26.3	0.1
Precision Instrument Repairers	140	3.9	0.6
Other Mechanics and Repairers	130	N.A.	0.6
Carpenters	40	13.5	0.2
Electricians	240	13.4	1.1
Plumbers and Pipefitters	230	12.9	1.0
Other Construction Trades Workers	90	N.A.	0.4
Tool and Die Makers	20	22.5	0.1
Machinists	70	14.4	0.3
Other Precision Metal Workers	40	N.A.	0.2
Other Precision Workers	20	N.A.	0.1
Printing Press Machine Setters and Set-up Operators	160	21.0	0.7
Photoengraving and Lithographing Photographers	20	30.2	0.1
Specialty Materials Printing Machine Setters and Set-up Operators	110	28.1	0.5
Printing Press Machine Operators and Tenders	620	11.4	2.8
Other Printing and Related Machine Operators and Tenders	200	N.A.	0.9
Paper Goods Machine Setters and Set-up Operators	1,760	8.7	7.9
Chemical Equipment Controllers and Operators	200	9.1	0.9
Chemical Equipment Tenders	320	11.8	1.4
Cutting and Slicing Machine Setters and Set-up Operators	140	16.4	0.6
Cutting and Slicing Machine Operators and Tenders	830	21.6	3.8
Painting and Related Machine Operators and Tenders	140	10.7	0.6
Cementing and Gluing Machine Operators and Tenders	310	13.9	1.4
Separating and Filtering Machine Operators and Tenders	160	19.1	0.7
Crushing, Grinding, and Mixing Machine Operators and Tenders	310	7.6	1.4
Extruding, Forming, and Pressing Operators and Tenders	240	15.8	1.1
Packaging and Filling Machine Operators and Tenders	230	29.5	1.0
Other Machine Setters and Set-up Operators	100	N.A.	0.4
Other Machine Operators and Tenders	1,890	N.A.	8.5

PAPER AND ALLIED PRODUCTS
(SIC 26)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Welders and Cutters	130	11.2	0.6
Cutters and Trimmers, Hand	70	32.9	0.3
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	240	23.9	1.1
Other Hand Workers	130	N.A.	0.6
Other Plant and System Operators	390	N.A.	1.8
Truck Drivers, Heavy-inc. Tractor Trailer	340	9.5	1.6
Truck Drivers, Light-inc. Delivery and Route Workers	80	25.4	0.4
Industrial Truck and Tractor Operators	650	9.2	2.9
Conveyor Operators and Tenders	40	23.9	0.2
Other Material Moving Equipment Operators	100	N.A.	0.4
Mechanic and Repairer Helpers	20	27.3	0.1
Machine Feeders and Offbearers	950	12.7	4.3
Material Movers, Hand	340	17.2	1.5
Hand Packers and Packagers	540	16.4	2.5
Other Laborers	1,190	N.A.	5.4

1/ Details may not add to total because of rounding or data suppression.

CHEMICALS AND ALLIED PRODUCTS
(SIC 28, Except 287)

June, 1983

This major group includes those establishments primarily engaged in the production of products made predominantly by chemical processes. The production of basic chemicals, chemical products to be further manufactured, the finished chemical products to be used for consumption, as in soap or drugs are also included in this category.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	35,830	N.A.	100.0
Managers and Officers	1,570	N.A.	4.4
Financial Managers	80	9.6	0.2
Personnel and Labor Relations Managers	80	7.4	0.2
Purchasing Managers	40	7.5	0.1
Marketing, Advertising, and Public Relations Managers	130	26.5	0.4
Administrative Services Managers	30	18.5	0.1
Industrial Production Managers	180	7.9	0.5
General Managers and Top Executives	600	8.7	1.7
Other Managers and Administrators	430	N.A.	1.2
Professional and Technical Workers	4,760	N.A.	13.3
Accountants and Auditors	170	10.5	0.5
Budget Analysts	40	18.9	0.1
Other Financial Specialists	40	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	100	5.6	0.3
Personnel and Labor Relations Specialists	100	8.7	0.3
Other Management Support Workers	320	N.A.	0.9
Engineers	1,100	N.A.	3.1
Chemical Engineers	600	17.6	1.7
Civil Engineers	20	18.2	0.1
Electrical and Electronic Engineers	50	21.9	0.2
Industrial Engineers	60	10.9	0.2
Mechanical Engineers	250	12.5	0.6
Other Engineers	120	N.A.	0.3
Electrical and Electronic Engineering Technicians and Technologists	30	27.7	0.1
Mechanical Engineering Technicians and Technologists	60	23.5	0.2
Drafters	40	20.9	0.1
Other Engineering Technicians and Technologists	160	N.A.	0.4
Chemists	650	7.6	1.8
Other Physical Scientists	40	N.A.	0.1
Biological Scientists	180	33.0	0.5
Biological, Agricultural, and Food Technicians and Technologists, except Health	30	6.1	0.1

CHEMICALS AND ALLIED PRODUCTS
(SIC 28, Except 287)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Chemical Technicians and Technologists, except Health	850	6.9	2.4
Other Science Technicians and Technologists	310	N.A.	0.8
EDP Systems Analysts	100	21.7	0.3
Computer Programmers	100	15.8	0.3
Registered Nurses	40	5.8	0.1
Writers and Editors	20	25.0	0.1
Designers	20	22.3	0.1
Other Professional, Paraprofessional, and Technical Workers	260	N.A.	0.2
Sales Workers	940	N.A.	2.6
Sales Supervisors	30	21.0	0.1
Sales Engineers	110	25.8	0.3
Sales Representatives, Scientific-except Retail	510	9.3	1.4
Other Sales Representatives, except Retail	120	N.A.	0.3
Other Sales and Related Workers	170	N.A.	0.5
Clerical Workers	3,820	N.A.	10.7
Clerical and Administrative Supervisors	150	14.2	0.4
Secretaries	880	10.7	2.5
Stenographers	60	16.7	0.2
Receptionists and Information Clerks	30	9.8	0.1
Typists	50	14.3	0.1
Typists, Word Processing Equipment	60	22.8	0.2
Personnel Clerks	80	4.1	0.2
File Clerks	30	16.2	0.1
Order Clerks	90	13.5	0.2
Procurement Clerks	80	12.4	0.2
Bookkeeping, Accounting, and Auditing Clerks	310	17.0	0.9
Payroll and Timekeeping Clerks	60	8.9	0.2
Billing, Cost, and Rate Clerks	110	9.8	0.3
General Office Clerks	430	8.6	1.2
Office Machine Operators	260	N.A.	0.7
Computer Operators	110	10.9	0.3
Data Entry Keyers	110	7.5	0.3
Other Office Machine Operators	40	N.A.	0.1
Switchboard Operators	40	12.4	0.1
Production, Planning, and Expediting Clerks	230	5.5	0.6
Weighers, Measurers, Checkers, Samplers	40	15.1	0.1
Stock Clerks-Stockroom or Warehouse	210	8.2	0.6
Traffic, Shipping, and Receiving Clerks	380	4.4	1.1
Other Clerical and Administrative Workers	240	N.A.	0.6

CHEMICALS AND ALLIED PRODUCTS
(SIC 28, Except 287)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Service Workers	510	N.A.	1.3
Service Supervisors	40	21.1	0.1
Guards and Watch Guards	80	17.0	0.2
Janitors and Cleaners	320	8.1	0.8
Other Cleaning and Building Service Workers	30	N.A.	0.1
Other Service Workers	40	N.A.	0.1
Agriculture, Forestry, or Fishery Workers	120	N.A.	0.4
Gardeners	20	30.8	0.1
Other Agriculture, Forestry, or Fishery Workers	100	N.A.	0.3
Production and Maintenance Workers	24,110	N.A.	67.3
Mechanics and Repairers Supervisors	230	5.1	0.6
Production Supervisors	1,540	4.4	4.3
Transportation and Material Moving Supervisors	60	10.5	0.2
Other Supervisors	30	N.A.	0.1
Precision Inspectors, Testers, and Graders	300	4.1	0.8
Production Inspectors	550	13.8	1.5
Mechanics and Repairers	2,700	N.A.	7.5
Machinery Maintenance Mechanics, Water or Power Generation Plant	420	30.2	1.2
Other Machinery Maintenance Mechanics	740	N.A.	2.1
Machinery Maintenance Workers	90	28.7	0.2
Maintenance Repairers, General Utility	870	21.0	2.4
Heating, Air Conditioning, and Refrigeration Mechanics	50	22.5	0.2
Precision Instrument Repairers	210	24.5	0.6
Other Mechanics and Repairers	320	N.A.	0.9
Carpenters	40	17.6	0.1
Electricians	220	15.9	0.6
Painters and Paperhangers	30	11.2	0.1
Plumbers and Pipefitters	70	25.8	0.2
Other Construction Trades Workers	30	N.A.	0.1
Machinists	420	3.2	1.2
Other Precision Metal Workers	70	N.A.	0.2
Textile Machine Operators and Tenders	2,390	20.2	6.6
Synthetic or Glass Fibers Extruding Machine Operators and Tenders	2,850	15.6	7.9
Furnance, Kiln, or Oven Operators and Tenders	100	19.9	0.3
Low Pressure Boiler Operators and Tenders	80	20.6	0.2
Chemical Equipment Controllers and Operators	1,690	11.8	4.7
Chemical Equipment Tenders	220	17.7	0.6
Separating and Filtering Machine Operators and Tenders	200	19.1	0.5

CHEMICALS AND ALLIED PRODUCTS
(SIC 28, Except 287)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Crushing, Grinding, and Mixing Operators and Tenders	510	8.6	1.4
Extruding, Forming, and Pressing Machine Setters and Set-up Operators	80	22.5	0.2
Extruding, Forming, and Pressing Machine Operators and Tenders	110	32.9	0.3
Packaging and Filling Machine Operators and Tenders	2,510	7.1	7.0
Other Machine Setters and Set-up Operators	450	N.A.	1.3
Other Machine Operators and Tenders	2,300	N.A.	6.4
Welders and Cutters	100	23.7	0.3
Other Hand Workers	500	N.A.	1.4
Waste Treatment Plant Operators	70	16.5	0.2
Chemical Plant and System Operators	360	9.8	1.0
Other Plant and System Operators	80	N.A.	0.2
Truck Drivers, Heavy-inc. Tractor Trailer	220	10.7	0.6
Truck Drivers, Light-inc. Delivery and Route Workers	70	13.3	0.2
Other Transportation Workers	70	N.A.	0.2
Industrial Truck and Tractor Operators	590	5.9	1.6
Other Material Moving Equipment Operators	110	N.A.	0.1
Mechanic and Repairer Helpers	60	23.1	0.2
Machine Feeders and Offbearers	150	16.5	0.4
Material Movers, Hand	310	14.3	0.8
Hand Packers and Packagers	980	5.8	2.7
Other Laborers	660	N.A.	1.8

1/ Details may not add to total because of rounding or data suppression.

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
(SIC 30)

June, 1983

Establishments engaged in the manufacture of rubber tires, rubber footwear, mechanical rubber goods, heels and soles, flooring, and rubber sundries are included in this major grouping. Tire manufacturing, but not recapping or retreading, is included in this category. These firms manufacture from natural, synthetic, or reclaimed rubber, gutta percha, balata, or gutta siak. This group also includes the molding of primary plastics and manufacturing miscellaneous finished plastic products.

Occupation	Estimated 1/ Employemnt	Relative Error %	Percent 1/ Distribution
Total Employment	26,360	N.A.	100.0
Managers and Officers	1,040	N.A.	3.9
Financial Managers	40	8.9	0.2
Personnel and Labor Relations Managers	40	8.9	0.2
Purchasing Managers	20	11.7	0.1
Marketing, Advertising, and Public Relations Managers	30	14.3	0.1
Industrial Production Managers	190	5.2	0.7
General Managers and Top Executives	590	13.7	2.2
Other Managers and Administrators	130	N.A.	0.4
Professional and Technical Workers	920	N.A.	3.5
Accountants and Auditors	110	16.3	0.4
Purchasing Agents and Buyers, except Farm Products	50	10.8	0.2
Personnel and Labor Relations Specialists	20	21.3	0.1
Other Management Support Workers	30	N.A.	0.1
Engineers	290	N.A.	1.1
Electrical and Electronic Engineers	30	20.3	0.1
Industrial Engineers	80	25.8	0.3
Mechanical Engineers	60	16.4	0.2
Other Engineers	120	N.A.	0.5
Drafters	40	16.7	0.2
Other Engineering Technicians and Technologists	90	N.A.	0.3
Chemists	50	33.4	0.2
Chemical Technicians and Technologists, except Health	90	29.3	0.4
Other Science Technicians and Technologists	50	N.A.	0.2
Computer Programmers	20	18.7	0.1
Other Professional, Paraprofessional, and Technical Workers	80	N.A.	0.3
Sales Workers	180	N.A.	0.7
Sales Supervisors	30	34.9	0.1
Other Sales Representatives, except Retail	50	N.A.	0.2
Other Sales and Related Workers	100	N.A.	0.4

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
(SIC 30)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Clerical Workers	1,640	N.A.	6.2
Clerical and Administrative Supervisors	40	9.0	0.2
Secretaries	290	13.5	1.1
Receptionists and Information Clerks	20	16.1	0.1
Typists	30	15.7	0.1
Personnel Clerks	30	14.3	0.1
Order Clerks	40	21.9	0.2
Procurement Clerks	20	20.0	0.1
Bookkeeping, Accounting, and Auditing Clerks	220	26.2	0.9
Payroll and Timekeeping Clerks	30	8.0	0.1
Billing, Cost, and Rate Clerks	20	17.1	0.1
General Office Clerks	180	17.5	0.7
Office Machine Operators	80	N.A.	0.3
Computer Operators	20	9.1	0.1
Data Entry Keyers	40	12.1	0.1
Other Office Machine Operators	20	N.A.	0.1
Switchboard Operators	20	15.7	0.1
Production, Planning, and Expediting Clerks	130	9.8	0.5
Stock Clerks-Stockroom or Warehouse	70	15.3	0.3
Traffic, Shipping, and Receiving Clerks	320	9.4	1.2
Other Clerical and Administrative Workers	100	N.A.	0.4
Service Workers	280	N.A.	1.0
Guards and Watch Guards	60	18.1	0.2
Janitors and Cleaners	180	12.9	0.7
Other Service Workers	40	N.A.	0.1
Production and Maintenance Workers	22,300	N.A.	84.6
Production Supervisors	1,400	5.2	5.3
Transportation and Material Moving Supervisors	40	17.8	0.2
Laborers Supervisors	40	26.5	0.2
Other Supervisors	140	N.A.	0.5
Precision Inspectors, Testers, and Graders	340	18.8	1.3
Mechanics and Repairers	1,450	N.A.	5.5
Machinery Maintenance Mechanics	530	17.1	2.0
Machinery Maintenance Workers	60	21.4	0.2
Maintenance Repairers, General Utility	560	14.9	2.1
Precision Instrument Repairers	170	25.5	0.6
Other Mechanics and Repairers	130	N.A.	0.5
Carpenters	20	18.2	0.1
Electricians	90	17.9	0.3
Other Construction Trades Workers	20	N.A.	0.1
Tool and Die Makers	30	24.6	0.1
Other Precision Workers	750	N.A.	2.8
Extruding and Drawing Machine Setters and Set-up Operators, Metal and Plastics	330	31.4	1.2

RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS
(SIC 30)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Plastic Molding and Casting Machine Operators and Tenders	2,260	24.4	8.6
Other Metal and Plastic Machine Setters and Set-up Operators	1,090	N.A.	4.1
Other Metal and Plastic Machine Operators and Tenders	230	N.A.	0.9
Printing Press Machine Operators and Tenders	60	31.6	0.2
Other Printing and Related Machine Operators and Tenders	80	N.A.	0.3
Sewing Machine Operators, Non-garment	420	31.7	1.6
Furnace, Kiln, or Oven Operators and Tenders	110	21.7	0.4
Cutting and Slicing Machine Operators and Tenders	480	15.4	1.8
Painting and Related Machine Setters and Set-up Operators	100	25.0	0.4
Painting and Related Machine Operators and Tenders	190	27.3	0.7
Crushing, Grinding, and Mixing Machine Operators and Tenders	610	18.4	2.3
Extruding, Forming, and Pressing Operators and Tenders	840	26.9	3.2
Other Machine Setters and Set-up Operators	410	N.A.	1.6
Other Machine Operators and Tenders	3,980	N.A.	15.1
Cutters and Trimmers, Hand	190	33.4	0.7
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	1,930	22.2	7.3
Other Hand Workers	1,170	N.A.	4.4
Other Plant and Systems Operators	50	N.A.	0.2
Truck Drivers, Heavy-inc. Tractor Trailer	110	31.2	0.4
Other Transportation and Related Workers	20	N.A.	0.1
Industrial Truck and Tractor Operators	840	8.3	3.2
Other Material Moving Equipment Operators	20	N.A.	0.1
Other Laborers	2,460	N.A.	9.3

1/ Details may not add to total because of rounding or data suppression.

LEATHER AND LEATHER PRODUCTS
(SIC 31)

April, 1983

This major group includes establishments engaged in tanning, currying, and finishing hides and skins, and establishments manufacturing finished leather and artificial leather products and some similar products made of other materials. Leather converters are also included.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	5,340	N.A.	100.0
Managers and Officers	170	N.A.	3.2
General Managers and Top Executives	90	22.8	1.6
Other Managers and Administrators	80	N.A.	1.6
Professional and Technical Workers	70	N.A.	1.3
Other Managerment Support Workers	20	N.A.	0.4
Other Professional, Paraprofessional, and Technical Workers	50	N.A.	0.9
Sales Workers	180	N.A.	3.4
Other Sales Representatives, except Retail	120	N.A.	2.3
Other Sales and Related Workers	60	N.A.	1.1
Clerical Workers	510	N.A.	9.5
Secretaries	80	18.9	1.4
Order Clerks	20	16.5	0.4
Bookkeeping, Accounting, and Auditing Clerks	40	21.9	0.8
Payroll and Timekeeping Clerks	30	8.3	0.5
General Office Clerks	50	19.8	1.0
Other Office Machine Operators	40	N.A.	0.7
Traffic, Shipping, and Receiving Clerks	90	17.5	1.6
Other Clerical and Administrative Workers	160	N.A.	3.0
Service Workers	60	N.A.	1.1
Production and Maintenance Workers	4,350	N.A.	81.5
Production Supervisors	160	5.4	3.0
Other Supervisors	20	N.A.	0.4
Production Inspectors	110	17.7	2.0
Mechanics and Repairers	110	N.A.	2.0
Machinery Maintenance Mechanics, Sewing Machines	50	23.3	0.9
Other Machinery Maintenance Mechanics	40	N.A.	0.7
Maintenance Repairers, General Utility	20	17.2	0.4
Leather Workers and Repairers	300	21.9	5.7
Other Precision Textile and Related Workers	50	N.A.	0.9
Sewing Machine Operators, Non-garment	350	16.6	6.5
Shoe Sewing Machine Operators and Tenders	760	15.5	14.2
Cement and Gluing Machine Operators and Tenders	260	26.3	5.0

LEATHER AND LEATHER PRODUCTS
(SIC 31)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Machine Setters and Set-up Operators	80	N.A.	1.5
Other Machine Operators and Tenders	1,150	N.A.	21.6
Sewers, Hand	70	10.9	1.3
Cutters and Trimmers, Hand	130	18.5	2.4
Other Hand Workers	240	N.A.	4.5
Machine Feeders and Offbearers	40	7.2	0.7
Material Movers, Hand	100	28.7	1.9
Other Laborers	420	N.A.	7.9

1/ Details may not add to total because of rounding or data suppression.

STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
(SIC 32)

May, 1983

Establishments in this group are primarily engaged in manufacturing glass, brick, structural clay tile, vitreous china plumbing fixtures, and concrete, gypsum, and plaster products. It also includes the manufacture of cut stone and stone products and asbestos.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	16,470	N.A.	100.0
Managers	790	N.A.	4.8
Financial Managers	20	5.9	0.1
Personnel and Labor Relations Managers	30	7.4	0.1
Industrial Production Managers	80	10.1	0.5
General Managers and Top Executives	580	3.6	3.5
Other Managers and Administrators	80	N.A.	0.5
Professional and Technical Workers	520	N.A.	3.2
Accountants and Auditors	60	9.4	0.4
Purchasing Agents and Buyers, except Farm Products	20	11.1	0.1
Personnel and Labor Relations Specialists	20	13.0	0.1
Other Management Support Workers	20	N.A.	0.1
Engineers	120	N.A.	0.6
Industrial Engineers	30	17.1	0.1
Mechanical Engineers	40	28.8	0.2
Other Engineers	50	N.A.	0.3
Electrical and Electronic Engineering Technicians	50	18.3	0.3
Drafters	60	23.2	0.4
Other Physical Scientists	20	N.A.	0.1
Other Science Technicians and Technologists	40	N.A.	0.2
Computer Programmers	20	13.3	0.1
Health Practitioners and Related Health Occupations	20	23.4	0.1
Other Professional, Paraprofessional, and Technical Workers	70	N.A.	0.4
Sales Workers	310	N.A.	1.8
Sales Representatives, Scientific - except Retail	40	14.6	0.2
Other Sales Representatives, except Retail	250	N.A.	1.5
Other Sales and Related Workers	20	N.A.	0.1
Clerical Workers	1,290	N.A.	7.8
Clerical and Administrative Supervisors	20	18.7	0.1
Secretaries	260	6.5	1.6
Personnel Clerks	20	6.7	0.1
Order Clerks	20	11.8	0.1
Procurement Clerks	20	34.9	0.1
Bookkeeping, Accounting, and Auditing Clerks	220	5.3	1.3

STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
(SIC 32)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Payroll and Timekeeping Clerks	30	10.7	0.1
Billing, Cost, and Rate Clerks	20	24.8	0.1
General Office Clerks	170	7.8	1.0
Other Office Machine Operators	50	N.A.	0.3
Dispatchers- except Police, Fire, and Ambulance	150	5.2	0.9
Production, Planning, and Expediting Clerks	70	19.3	0.4
Stock Clerks - Stockroom or Warehouse	50	15.3	0.3
Traffic, Shipping, and Receiving Clerks	100	13.9	0.6
Other Clerical and Administrative Workers	90	N.A.	0.5
Service Workers	310	N.A.	1.8
Guards and Watch Guards	30	20.0	0.1
Janitors and Cleaners	210	15.7	1.3
Other Service Workers	70	N.A.	0.4
Agriculture, Forestry, or Fishery Workers	20	N.A.	0.1
Production and Maintenance Workers	13,230	N.A.	80.4
Mechanics and Repairers Supervisors	50	11.0	0.3
Production Supervisors	690	3.6	4.2
Transportation and Material Moving Supervisors	20	13.9	0.1
Laborers Supervisors	60	34.9	0.4
Precision Inspectors, Testers, and Graders	100	20.9	0.6
Production Inspectors	590	10.9	3.6
Mechanics and Repairers	920	N.A.	5.6
Machinery Maintenance Mechanics	240	7.4	1.4
Refractory Materials Repairers, except Brick Masons	20	32.8	0.1
Machinery Maintenance Workers	20	22.9	0.1
Maintenance Repairers, General Utility	400	10.5	2.5
Automotive Mechanics	120	8.6	0.7
Bus, Truck, and Diesel Mechanics	60	10.6	0.4
Other Mechanics and Repairers	60	N.A.	0.4
Carpenters	50	30.0	0.3
Electricians	110	21.6	0.7
Concrete and Terrazzo Finishers	200	11.6	1.2
Machinists	140	11.6	0.8
Other Precision Metal Workers	30	N.A.	0.1
Precision Molders, Shapers, Casters, and Carvers, except Jewelry and Foundry	200	14.7	1.2
Precision Patternmakers, Model Makers, Layout Workers, and Cutters	20	24.5	0.1
Other Precision Workers	70	N.A.	0.4
Machine Tool Cutting Operators and Tenders, Metal and Plastic	250	29.9	1.5
Furnace, Kiln, and Oven Operators and Tenders	260	8.7	1.6

STONE, CLAY, GLASS, AND CONCRETE PRODUCTS
(SIC 32)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Cutting and Slicing Machine Setters and Set-up Operators	130	8.4	0.8
Cutting and Slicing Machine Operators and Tenders	150	24.7	0.9
Painting and Related Machine Setters and Set-up Operators	60	33.3	0.4
Crushing, Grinding, and Mixing Machine Operators and Tenders	460	13.9	2.8
Extruding, Forming, and Pressing Machine Setters and Set-up Operators	310	25.6	1.9
Extruding, Forming, Pressing, and Compacting Machine Operators and Tenders	100	20.7	0.6
Packaging and Filling Machine Operators and Tenders	400	26.6	2.4
Other Machine Setters and Set-up Operators	110	N.A.	0.7
Other Machine Operators and Tenders	1,160	N.A.	7.0
Welders and Cutters	70	15.9	0.4
Cutters and Trimmers, Hand	190	11.6	1.2
Molders and Casters, Hand	260	31.6	1.6
Painting and Related Workers, Hand	30	28.4	0.1
Grinding and Polishing Workers, Hand	60	30.4	0.4
Assemblers and Fabricators -except Machine, Electrical, Electronic, and Precision	130	25.2	0.8
Other Hand Workers	80	N.A.	0.4
Other Plant and Systems Operators	30	N.A.	0.1
Truck Drivers, Heavy-inc. Tractor Trailer	1,680	4.2	10.2
Truck Drivers, Light-inc. Delivery and Route Workers	230	14.7	1.4
Other Motor Vehicle Operators	20	N.A.	0.1
Graders, Dozers, and Scrapers Operators	20	11.7	0.1
Hoist and Winch Operators	80	30.1	0.4
Crane and Tower Operators	30	12.4	0.1
Industrial Truck and Tractor Operators	540	4.8	3.3
Conveyor Operators and Tenders	100	31.3	0.6
Operating Engineers	20	22.5	0.1
Other Material Moving Equipment Operators	30	N.A.	0.1
Machine Feeders and Offbearers	1,100	22.2	6.7
Material Movers, Hand	380	13.1	2.3
Hand Packers and Packagers	430	11.5	2.6
Other Laborers	1,080	N.A.	6.5

1/ Details may not add to total because of rounding or data suppression.

PRIMARY METALS INDUSTRIES
(SIC 33, Except 335)

April, 1983

This major group includes establishments primarily engaged in manufacturing pig iron, hot metal, and ferroalloys; iron and steel castings; and rolling, drawing and extruding copper, brass, and bronze. It also includes the manufacture of castings and die castings of aluminum, brass, bronze, etc., and the secondary smelting of nonferrous metals.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	4,840	N.A.	100.0
Managers and Officers	250	N.A.	5.1
General Managers and Top Executives	190	5.3	3.8
Other Managers and Administrators	60	N.A.	1.2
Professional and Technical Workers	270	N.A.	5.6
Accountants and Auditors	20	N.A.	0.4
Purchasing Agents and Buyers, except Farm Products	20	23.8	0.4
Other Management Support Workers	20	N.A.	0.4
Engineers	90	N.A.	1.8
Metallurgists and Metallurgical, Ceramic and Materials Engineers	20	13.2	0.4
Mechanical Engineers	30	13.8	0.6
Other Engineers	40	N.A.	0.8
Other Engineering Technicians and Technologists	70	N.A.	1.4
Other Professional, Paraprofessional, and Technical Workers	50	N.A.	1.0
Sales Workers	90	N.A.	1.9
Sales Representatives, Scientific-except Retail	40	24.0	0.7
Other Sales Representatives, except Retail	30	N.A.	0.6
Other Sales and Related Workers	20	N.A.	0.4
Clerical Workers	470	N.A.	9.7
Secretaries	100	6.2	2.0
Bookkeeping, Accounting, and Auditing Clerks	40	11.7	0.8
General Office Clerks	80	7.6	1.6
Production, Planning, and Expediting Clerks	40	9.4	0.8
Traffic, Shipping, and Receiving Clerks	110	3.0	2.3
Other Clerical and Administrative Workers	100	N.A.	2.0
Service Workers	80	N.A.	1.6
Janitors and Cleaners	60	7.1	1.1
Other Service Workers	20	N.A.	0.4
Production and Maintenance Workers	3,680	N.A.	76.0
Mechanics and Repairers Supervisors	30	8.6	0.6
Production Supervisors	270	7.7	5.5
Other Supervisors	30	N.A.	0.6
Production Inspectors	140	8.8	2.7

PRIMARY METALS INDUSTRIES
(SIC 33, Except 335)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Mechanics and Repairers	370	N.A.	7.6
Machinery Maintenance Mechanics	110	18.4	2.3
Maintenance Repairers, General Utility	140	6.3	2.8
Other Mechanics and Repairers	120	N.A.	2.5
Electricians	50	27.2	0.9
Other Construction Trades Workers	40	N.A.	0.8
Tool and Die Makers	20	12.0	0.5
Machinists	50	8.9	1.0
Precision Tool Grinders, Filers, and Sharpeners	80	15.0	1.6
Pattern and Model Makers, Metal and Plastic	50	6.6	0.9
Precision Foundry Mold and Core Makers	190	13.0	3.9
Lathe and Turning Machine Setters and Set-up Operators, Metal and Plastic	40	2.2	0.9
Grinding, Lapping, and Buffing Machine Tool Setters and Set-up Operators, Metal and Plastic	20	9.7	0.4
Machine Tool Cutting Operators and Tenders, Metal and Plastic	230	6.3	4.8
Extruding and Drawing Machine Setters and Set-up Operators, Metal and Plastic	20	28.1	0.4
Metal Molding, Coremaking, and Casting Machine Setters and Set-up Operators	80	33.1	1.6
Heating Equipment Setters and Set-up Operators, Metal and Plastic	40	27.1	0.8
Heat Treating, Annealing, and Tempering Machine Operators and Tenders, Metal and Plastic	80	11.0	1.7
Furnace Operators and Tenders	220	22.4	4.5
Other Metal and Plastic Machine Setters and Set-up Operators	110	N.A.	2.2
Other Metal and Plastic Machine Operators and Tenders	210	N.A.	4.3
Crushing, Grinding, and Mixing Machine Operators and Tenders	40	18.4	0.8
Packaging and Filling Machine Operators	90	27.4	1.8
Other Machine Operators and Tenders	60	N.A.	1.2
Welders and Cutters	40	18.7	0.8
Metal Pourers and Casters	170	12.2	3.6
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	110	16.9	2.3
Other Hand Workers	60	N.A.	1.2
Other Plant and Systems Operators	30	N.A.	0.6
Industrial Truck and Tractor Operators	170	10.9	3.4
Other Motor Vehicle Operators	70	N.A.	1.4
Other Transportation and Related Workers	80	N.A.	1.7
Material Movers, Hand	250	N.A.	5.2
Other Laborers	140	N.A.	2.8

1/ Details may not add to total because of rounding or data suppression.

FABRICATED METAL PRODUCTS,
EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
(SIC 34, Except 342)

June, 1983

This group of establishments includes those engaged primarily in fabricating products from ferrous and nonferrous metal such as cans, tinware, tools, cutlery, hardware, fabricated structural metal products, metal forgings, stampings, and a variety of metal and wire products not elsewhere classified.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	17,690	N.A.	100.0
Managers and Officers	1,190	N.A.	6.7
Financial Managers	40	10.9	0.2
Personnel and Labor Relations Managers	40	17.9	0.2
Purchasing Managers	30	18.9	0.2
Marketing, Advertising, and Public Relations Managers	80	24.4	0.4
Industrial Production Managers	60	15.6	0.4
General Managers and Top Executives	780	6.8	4.4
Other Managers and Administrators	160	N.A.	0.9
Professional and Technical Workers	1,060	N.A.	5.9
Accountants and Auditors	110	16.3	0.6
Purchasing Agents and Buyers	50	14.6	0.3
Personnel and Labor Relations Specialists, except Farm Products	30	22.4	0.1
Cost Estimators	90	25.8	0.5
Other Management Support Workers	30	N.A.	0.1
Engineers	200	N.A.	1.1
Civil Engineers	40	32.6	0.2
Industrial Engineers	30	28.6	0.1
Mechanical Engineers	100	13.4	0.6
Other Engineers	30	N.A.	0.1
Drafters	350	17.5	1.9
Other Engineering Technicians and Technologists	60	N.A.	0.4
Other Professional, Paraprofessional, and Technical Workers	140	N.A.	0.8
Sales Workers	620	N.A.	3.5
Sales Supervisors	40	30.4	0.2
Sales Representatives, Scientific-except Retail	160	24.5	0.9
Other Sales Representatives, except Retail	270	N.A.	1.5
Other Sales and Related Workers	150	N.A.	0.8
Clerical Workers	1,590	N.A.	8.9
Clerical and Administrative Supervisors	30	27.4	0.1
Secretaries	410	7.1	2.3
Bookkeeping, Accounting, and Auditing Clerks	240	8.9	1.4
Payroll and Timekeeping Clerks	30	17.4	0.1
General Office Clerks	300	17.6	1.7

FABRICATED METAL PRODUCTS,
EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
(SIC 34, Except 342)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Office Machine Operators	80	N.A.	0.4
Computer Operators	30	16.3	0.1
Data Entry Keyers	50	18.5	0.3
Switchboard Operators	20	15.0	0.1
Production, Planning, and Expediting Clerks	120	22.0	0.6
Weighers, Measurers, Checkers, Samplers	20	30.8	0.1
Stock Clerks - Stockroom or Warehouse	80	14.8	0.4
Traffic, Shipping, and Receiving Clerks	100	18.3	0.6
Other Clerical and Administrative Workers	160	N.A.	0.9
Service Workers	260	N.A.	1.5
Guards and Watch Guards	40	29.8	0.2
Janitors and Cleaners	220	13.0	1.2
Production and Maintenance Workers	12,970	N.A.	73.3
Production Supervisors	900	5.1	5.1
Other Supervisors	70	N.A.	0.4
Precision Inspectors, Testers, and Graders	100	15.4	0.6
Production Inspectors	160	12.0	0.8
Mechanics and Repairers	690	N.A.	3.9
Machinery Maintenance Mechanics	190	10.5	1.1
Millwrights	150	31.8	0.8
Machinery Maintenance Workers	30	31.6	0.1
Maintenance Repairers, General Utility	270	10.2	1.5
Other Mechanics and Repairers	50	N.A.	0.3
Electricians	60	21.2	0.3
Other Construction Trades Workers	400	N.A.	2.2
Tool and Die Makers	160	10.0	0.8
Machinists	340	9.8	1.9
Pattern and Model Makers, Metal	30	31.3	0.1
Precision Layout Workers, Metal	150	23.4	0.8
Sheet Metal Workers	430	26.2	2.4
Other Precision Metal Workers	90	N.A.	0.5
Other Precision Workers	50	N.A.	0.3
Sawing Machine Setters and Set-up Operators, Metal and Plastic	110	23.1	0.6
Lathe and Turning Machine Setters and Set-up Operators, Metal and Plastic	220	20.5	1.2
Drilling and Boring Machine Setters and Set-up Operators, Metal and Plastic	70	27.7	0.4
Grinding, Lapping, and Buffing Machine Setters and Set-up Operators, Metal and Plastic	90	34.8	0.5
Machine Cutting Operators and Tenders, Metal and Plastic	290	20.7	1.6
Punching Machine Setters and Set-up Operators, Metal and Plastic	210	23.1	1.2
Press and Press Brake Machine Setters and Set-up Operators, Metal and Plastic	170	15.9	0.9

FABRICATED METAL PRODUCTS,
EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT
(SIC 34, Except 342)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Shear and Slitter Machine Setters and Set-up Operators, Metal and Plastic	160	14.1	0.9
Machine Forming Operators and Tenders, Metal and Plastic	810	16.2	4.6
Combination Machine Operators and Tenders, Metal and Plastic	70	25.1	0.4
Welding Machine Setters and Set-up Operators	530	17.4	3.0
Welding Machine Operators and Tenders	420	20.7	2.4
Metal Fabricators, Structural Metal Products	380	33.7	2.1
Electrolytic Plating and Coating Machine Setters and Set-up Operators, Metal and Plastic	200	31.3	1.2
Electrolytic Plating and Coating Machine Operators and Tenders, Metal and Plastic	160	16.4	0.9
Other Metal and Plastic Machine Setters and Set-up Operators	430	N.A.	2.4
Other Metal and Plastic Machine Operators and Tenders	200	N.A.	2.1
Other Printing and Related Setters and Set-up Operators	40	N.A.	0.2
Painting and Related Machine Setters and Set-up Operators	140	26.3	0.8
Painting and Related Machine Operators and Tenders	230	18.7	1.3
Other Machine Operators and Tenders	160	N.A.	0.9
Fitters, Structural Metal-Precision	360	24.8	2.0
Grinding and Polishing Workers, Hand	180	23.1	1.0
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	890	17.4	5.0
Other Hand Workers	700	N.A.	3.9
Truck Drivers, Heavy-inc. Tractor Trailer	190	15.8	1.1
Truck Drivers, Light-inc. Delivery and Route Workers	70	25.7	0.4
Crane and Tower Operators	100	23.8	0.5
Industrial Truck and Tractor Operators	300	17.1	1.7
Machiner Feeders and Offbearers	130	30.6	0.7
Material Movers, Hand	430	14.6	2.5
Hand Packers and Packagers	240	22.3	1.3
Other Laborers	660	N.A.	3.7

1/ Details may not add to total because of rounding or data suppression.

MACHINERY, EXCEPT ELECTRICAL
(SIC 35, Except 356)

June, 1983

Establishments in this major group are primarily engaged in manufacturing machinery and equipment. It includes machinery with built-in or detachable motors and portable tools, pneumatic or electrical powered. It does not include electrical household appliances, hand tools, or general industrial machinery and equipment.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	46,010	N.A.	100.0
Managers and Officers	3,790	N.A.	8.0
Financial Managers	160	4.9	0.3
Personnel and Labor Relations Managers	140	5.1	0.3
Purchasing Managers	120	5.7	0.2
Marketing, Advertising, and Public Relations Managers	110	27.2	0.2
Administrative Services Managers	60	25.8	0.1
Industrial Production Managers	220	19.7	0.5
General Managers and Top Executives	1,030	5.8	2.2
Other Managers and Administrators	1,950	N.A.	4.2
Professional and Technical Workers	9,340	N.A.	20.6
Accountants and Auditors	190	9.4	0.4
Other Financial Specialists	30	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	310	3.8	0.7
Personnel and Labor Relations Specialists	170	4.7	0.4
Cost Estimators	40	19.8	0.1
Other Management Support Workers	1,480	N.A.	3.2
Engineers	3,460	N.A.	7.5
Electrical and Electronic Engineers	1,660	6.6	3.6
Industrial Engineers	1,100	7.7	2.4
Mechanical Engineers	470	8.6	1.0
Other Engineers	230	N.A.	0.5
Electrical and Electronic Engineering Technicians and Technologists	480	19.1	1.1
Mechanical Engineering Technicians and Technologists	80	26.1	0.2
Drafters	540	6.6	1.2
Other Engineering Technicians and Technologists	90	N.A.	0.2
EDP Systems Analysts	320	8.1	0.7
Computer Programmers	1,740	11.5	3.8
Programmers, Numerical Tool and Process Control	70	25.1	0.1
Health Practioners and Related Health Occupations	30	14.9	0.1
Writers and Editors	30	10.1	0.1
Designers	120	14.6	0.3
Other Professional, Paraprofessional, and Technical Workers	160	N.A.	0.4

MACHINERY, EXCEPT ELECTRICAL
(SIC 35, Except 356)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Sales Workers	780	N.A.	1.7
Sales Supervisors	60	31.2	0.1
Sales Engineers	50	26.2	0.1
Sales Representatives, Scientific - except Retail	200	18.9	0.4
Other Sales Representatives, except Retail	400	N.A.	0.9
Other Sales and Related Workers	70	N.A.	0.2
Clerical Workers	7,200	N.A.	15.7
Clerical and Administrative Supervisors	140	20.5	0.3
Secretaries	1,050	4.5	2.3
Stenographers	30	33.6	0.1
Receptionists and Information Clerks	40	11.8	0.1
Typists	80	20.0	0.2
Personnel Clerks	40	10.4	0.1
Order Clerks	60	20.8	0.1
Procurement Clerks	70	9.1	0.1
Bookkeeping, Accounting, and Auditing Clerks	430	8.4	0.9
Payroll and Timekeeping Clerks	60	16.6	0.1
Billing, Cost, and Rate Clerks	40	19.6	0.1
General Office Clerks	1,960	8.8	4.3
Office Machine Operators	490	N.A.	1.1
Computer Operators	320	7.5	0.7
Data Entry Keyers	130	14.0	0.3
Other Office Machine Operators	40	N.A.	0.1
Switchboard Operators	30	20.0	0.1
Production, Planning, and Expediting Clerks	880	4.4	2.0
Stock Clerks - Stockroom or Warehouse	860	5.1	1.8
Traffic, Shipping, and Receiving Clerks	480	6.8	1.0
Other Clerical and Administrative Workers	460	N.A.	1.0
Service Workers	410	N.A.	0.9
Guards and Watch Guards	30	25.9	0.1
Janitors and Cleaners	280	9.4	0.6
Other Service Workers	100	N.A.	0.2
Production and Maintenance Workers	24,490	N.A.	53.4
Production Supervisors	1,220	7.2	2.6
Other Supervisors	180	N.A.	0.4
Precision Inspectors, Testers, and Graders	1,080	8.2	2.3
Production Inspectors	280	21.0	0.6
Mechanics and Repairers	880	N.A.	2.0
Machinery Maintenance Mechanics	230	14.8	0.5
Machinery Maintenance Workers	40	25.1	0.1
Maintenance Repairers, General Utility	400	8.8	0.9
Other Mechanics and Repairers	210	N.A.	0.5

MACHINERY, EXCEPT ELECTRICAL
(SIC 35, Except 356)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Electricians	90	19.1	0.2
Painters and Paperhangers	30	21.6	0.1
Other Construction Trades Workers	70	N.A.	0.2
Tool and Die Makers	690	16.4	1.5
Machinists	2,170	7.0	4.7
Precision Tool Grinders, Filers, and Sharpeners	280	21.1	0.6
Sheet Metal Workers	580	13.8	1.3
Other Precision Metal Workers	50	N.A.	0.1
Other Precision Workers	120	N.A.	0.3
Sawing Machine Setters and Set-up Operators, Metal and Plastic	160	28.4	0.3
Lathe and Turning Machine Setters and Set-up Operators, Metal and Plastic	610	9.6	1.3
Drilling and Boring Machine Setters and Set-up Operators, Metal and Plastic	480	13.9	1.0
Milling Machine Setters and Set-up Operators, Metal and Plastic	310	29.5	0.7
Grinding, Lapping, and Buffing Machine Setters and Set-up Operators, Metal and Plastic	180	17.8	0.4
Machine Cutting Operators and Tenders, Metal and Plastic	1,150	18.4	2.5
Punching Machine Setters and Set-up Operators, Metal and Plastic	140	16.3	0.3
Press and Press Brake Machine Setters and Set-up Operators, Metal and Plastic	80	18.2	0.2
Sheer and Slitter Machine Setters and Set-up Operators, Metal and Plastic	30	32.9	0.1
Machine Forming Operators and Tenders, Metal and Plastic	560	18.0	1.2
Numerical Control Machine Operators and Tenders, Metal and Plastic	480	19.4	1.0
Combination Machine Setters and Set-up Operators, Metal and Plastic	320	26.4	0.7
Welding Machine Setters and Set-up Operators	640	18.8	1.4
Welding Machine Operators and Tenders	530	12.4	1.2
Soldering and Brazing Machine Setters and Set-up Operators	40	34.3	0.1
Other Metal and Plastic Machine Setters and Set-up Operators	130	N.A.	0.3
Other Metal and Plastic Machine Operators and Tenders	630	N.A.	1.4
Painting and Related Machine Setters and Set-up Operators	100	19.4	0.2
Painting and Related Machine Operators and Tenders	180	15.5	0.4

MACHINERY, EXCEPT ELECTRICAL
(SIC 35, Except 356)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Machine Setters and Set-up Operators	50	N.A.	0.1
Other Machine Operators and Tenders	360	N.A.	0.8
Precision Machine Assemblers	1,240	12.8	2.7
Precision Electromechanical Equipment Assemblers	2,110	6.8	4.6
Other Precision Metal Assemblers	140	N.A.	0.3
Machine Assemblers	420	11.0	0.9
Electrical and Electronic Assemblers	1,130	24.2	2.5
Grinding and Polishing Workers, Hand	140	18.6	0.3
Assemblers and Fabricators - except Machine, Electrical, Electronic, and Precision	2,030	19.2	4.4
Other Hand Workers	660	N.A.	1.4
Other Plant and System Operators	30	N.A.	0.1
Truck Drivers, Heavy - inc. Tractor Trailer	70	18.1	0.2
Truck Drivers, Light - inc. Delivery and Route Workers	40	28.5	0.1
Industrial Truck and Tractor Operators	250	12.2	0.5
Other Material Moving Equipment Operators	170	N.A.	0.4
Material Movers, Hand	160	13.6	0.3
Other Laborers	1,020	N.A.	2.2

1/ Details may not add to total because of rounding or data suppression.

ELECTRICAL AND ELECTRONIC MACHINERY,
EQUIPMENT AND SUPPLIES
(SIC 36, Except 369)

June, 1983

Establishments in this major group are primarily engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. This group includes the manufacture of household appliances.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	47,580	N.A.	100.0
Managers and Officers	1,710	N.A.	3.6
Financial Managers	130	8.0	0.3
Personnel and Labor Relations Managers	90	6.1	0.2
Purchasing Managers	60	7.6	0.1
Marketing, Advertising, and Public Relations Managers	120	17.5	0.2
Administrative Services Managers	130	18.8	0.3
Industrial Production Managers	240	17.0	0.5
General Managers and Top Executives	600	18.1	1.3
Other Managers and Administrators	340	N.A.	0.7
Professional and Technical Workers	4,920	N.A.	10.5
Accountants and Auditors	230	22.4	0.5
Budget Analysts	20	21.7	0.1
Other Financial Specialists	50	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	180	10.4	0.4
Personnel and Labor Relations Specialists	80	6.2	0.2
Other Management Support Workers	170	N.A.	0.4
Engineers	2,330	N.A.	4.9
Electrical and Electronic Engineers	1,140	7.0	2.4
Industrial Engineers	530	31.4	1.1
Mechanical Engineers	420	7.5	0.9
Other Engineers	240	N.A.	0.5
Electrical and Electronic Engineering Technicians and Technologists	590	7.6	1.2
Industrial Engineering Technicians and Technologists	50	16.2	0.1
Mechanical Engineering Technicians and Technologists	150	12.7	0.3
Drafters	370	7.4	0.8
Other Engineering Technicians and Technologists	110	N.A.	0.2
Other Science Technicians and Technologists	20	N.A.	0.1
EDP Systems Analysts	180	19.8	0.4
Computer Programmers	100	15.8	0.2
Computer Programmer Aides	90	23.0	0.2
Other Professional, Paraprofessional, and Technical Workers	200	N.A.	0.4

ELECTRICAL AND ELECTRONIC MACHINERY,
EQUIPMENT AND SUPPLIES
(SIC 36, Except 369)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Sales Workers	590	N.A.	1.3
Sales Supervisors	150	18.4	0.3
Sales Engineers	80	18.4	0.2
Sales Representatives, Scientific- except Retail	290	20.5	0.6
Other Sales and Related Workers	70	N.A.	0.2
Clerical Workers	4,600	N.A.	9.7
Clerical and Administrative Supervisors	150	11.5	0.3
Secretaries	670	12.2	1.4
Receptionists and Information Clerks	40	12.7	0.1
Typists	130	10.8	0.3
Typists, Word Processing Equipment	90	27.7	0.2
Personnel Clerks	90	6.4	0.2
File Clerks	30	19.9	0.1
Order Clerks	200	12.9	0.4
Procurement Clerks	60	11.6	0.1
Statistical Clerks	20	13.2	0.1
Bookkeeping, Accounting, and Auditing Clerks	240	9.6	0.5
Payroll and Timekeeping Clerks	100	11.3	0.2
Billing, Cost, and Rate Clerks	110	13.6	0.2
General Office Clerks	270	13.1	0.6
Office Machine Operators	280	N.A.	0.6
Computer Operators	110	8.6	0.2
Data Entry Keyers	140	19.9	0.3
Other Office Machine Operators	30	N.A.	0.1
Switchboard Operators	40	6.7	0.1
Production, Planning, and Expediting Clerks	450	9.1	0.9
Stock Clerks - Stockroom or Warehouse	870	6.8	1.8
Traffic, Shipping, and Receiving Clerks	390	15.0	0.8
Other Material Recording and Related Workers	220	N.A.	0.5
Other Clerical and Administrative Workers	150	N.A.	0.3
Service Workers	400	N.A.	0.9
Guards and Watch Guards	140	18.6	0.3
Janitors and Cleaners	260	13.7	0.6
Production and Maintenance Workers	35,360	N.A.	74.3
Mechanics and Repairers Supervisors	110	17.7	0.2
Production Supervisors	1,200	7.5	2.5
Laborers Supervisors	90	5.7	0.2
Other Supervisors	50	N.A.	0.1
Precision Inspectors, Testers, and Graders	1,690	9.3	3.6
Production Inspectors	1,370	5.4	2.9
Mechanics and Repairers	1,880	N.A.	3.9
Machinery Maintenance Mechanics	630	7.2	1.3
Machinery Maintenance Workers	150	32.2	0.3

ELECTRICAL AND ELECTRONIC MACHINERY,
EQUIPMENT AND SUPPLIES
(SIC 36, Except 369)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Maintenance Repairers, General Utility	440	10.9	0.9
Electrical Repairers, Industrial Equipment	320	26.3	0.7
Other Mechanics and Repairers	340	N.A.	0.7
Carpenters	50	27.9	0.1
Electricians	150	10.8	0.3
Painters and Paperhangers	40	14.2	0.1
Plumbers and Pipefitters	20	23.9	0.1
Tool and Die Makers	560	7.4	1.2
Machinists	510	25.1	1.1
Other Precision Workers	310	N.A.	0.7
Lathe and Turning Machine Setters and Set-up Operators, Metal and Plastic	190	23.5	0.4
Drilling and Boring Machine Setters and Set-up Operators, Metal and Plastic	100	17.7	0.2
Machine Cutting Operators and Tenders, Metal and Plastic	680	34.0	1.4
Punching Machine Setters and Set-up Operators, Metal and Plastic	120	10.0	0.2
Press and Press Brake Machine Setters and Set-up Operators, Metal and Plastic	100	18.5	0.2
Shear and Slitter Machine Setters and Set-up Operators, Metal and Plastic	50	29.6	0.1
Machine Forming Operators and Tenders, Metal and Plastic	170	23.2	0.4
Numerical Machine Operator and Tenders, Metal and Plastic	100	22.1	0.2
Wedding Machine Setters and Set-up Operators	60	24.6	0.1
Plastic Molding and Casting Machine Setters and Set-up Operators	150	12.9	0.3
Welding Machine Operators and Tenders	140	13.4	0.3
Plastic Molding and Casting Machine Operators and Tenders	530	11.7	1.1
Electrolytic Plating and Coating Machine Operators and Tenders, Metal and Plastic	20	18.6	0.1
Other Machine Operators and Tenders, Metal and Plastic	200	N.A.	0.4
Other Machine Setters and Set-up Operators, Metal and Plastic	360	N.A.	0.8
Other Printing and Related Machine Operators and Tenders	40	N.A.	0.1
Painting and Related Machine Setters and Set-up Operators	60	20.5	0.1
Painting and Related Machine Operators and Tenders	50	21.3	0.1
Packaging and Filling Machine Operators and Tenders	40	11.6	0.1

ELECTRICAL AND ELECTRONIC MACHINERY,
EQUIPMENT AND SUPPLIES
(SIC 36, Except 369)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Other Machine Operators and Tenders	710	N.A.	1.5
Precision Electromechanical Equipment Assemblers	920	21.0	1.9
Precision Electrical and Electronic Equipment Assemblers	1,690	22.9	3.6
Other Precision Metal Assemblers	750	N.A.	1.5
Electrical and Electronic Assemblers	5,860	18.7	12.3
Coil Winders, Tapers and Finishers	770	27.1	1.6
Welders and Cutters	120	15.5	0.2
Solderers and Brazers	60	22.8	0.1
Assemblers and Fabricators - except Machine, Electrical, Electronic, and Precision	7,790	10.9	16.3
Other Hand Workers	2,960	N.A.	6.2
Other Plant and System Operators	80	N.A.	0.2
Truck Driver, Heavy - inc. Tractor Trailers	30	6.2	0.1
Other Transportation and Related Workers	40	N.A.	0.1
Industrial Truck and Tractor Operators	420	18.8	0.9
Other Material Moving Equipment Operators	280	N.A.	0.6
Material Movers, Hand	370	9.9	0.8
Other Laborers	1,320	N.A.	2.8

1/ Details may not add to total because of rounding or data suppression.

TRANSPORTATION EQUIPMENT
(SIC 37, Except 379)

June, 1983

This major group includes establishments primarily engaged in manufacturing equipment for transportation via land, water, and air. It includes the manufacturing of motor vehicles, aircraft, missiles, boats, railroad equipment, and other transportation equipment.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	17,360	N.A.	100.0
Managers and Officers	630	N.A.	3.6
Financial Managers	50	14.6	0.3
Personnel and Labor Relations Managers	40	9.0	0.2
Purchasing Managers	30	15.5	0.2
Marketing, Advertising, and Public Relations Managers	40	24.0	0.2
Administrative Services Managers	20	32.4	0.1
Industrial Production Managers	120	12.3	0.7
General Managers and Top Executives	210	8.8	1.2
Other Managers and Administrators	120	N.A.	0.7
Professional and Technical Workers	950	N.A.	5.5
Accountants and Auditors	60	17.2	0.3
Other Financial Specialists	30	N.A.	0.2
Purchasing Agents and Buyers, except Farm Products	110	11.0	0.6
Personnel and Labor Relations Specialists	30	16.8	0.1
Cost Estimators	20	19.4	0.1
Other Management Support Workers	20	N.A.	0.1
Engineers	330	N.A.	2.0
Electrical and Electronic Engineers	40	31.7	0.2
Industrial Engineers	80	13.0	0.5
Mechanical Engineers	150	13.5	0.9
Other Engineers	60	N.A.	0.4
Industrial Engineering Technicians and Technologists	40	17.3	0.3
Mechanical Engineering Technicians and Technologists	20	33.0	0.1
Drafters	100	22.2	0.6
Other Engineering Technicians and Technologists	30	N.A.	0.2
Computer Programmers	40	33.2	0.2
Health Practioners and Related Health Occupations	20	25.0	0.1
Technical Writers	20	34.6	0.1
Other Professional, Paraprofessional, and Technical Workers	80	N.A.	0.5
Sales Workers	220	N.A.	1.3
Other Sales Representatives, except Retail	120	N.A.	0.7
Other Sales and Related Workers	100	N.A.	0.6

TRANSPORTATION EQUIPMENT
(SIC 37, Except 379)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Clerical Workers	1,470	N.A.	8.6
Clerical and Administrative Supervisors	90	24.0	0.5
Secretaries	240	13.2	1.4
Receptionists and Information Clerks	20	19.6	0.1
Typists	40	15.2	0.3
Personnel Clerks	20	11.5	0.1
Order Clerks	30	22.6	0.2
Procurement Clerks	30	20.1	0.2
Statistical Clerks	20	28.5	0.1
Bookkeeping, Accounting, and Auditing Clerks	140	10.3	0.8
Payroll and Timekeeping Clerks	30	9.8	0.2
Billing, Cost, and Rate Clerks	50	20.8	0.3
General Office Clerks	110	14.6	0.7
Office Machine Operators	90	N.A.	0.5
Computer Operators	20	26.0	0.1
Data Entry Keyers	50	15.5	0.3
Other Office Machine Operators	20	N.A.	0.1
Switchboard Operators	20	13.0	0.1
Production, Planning, and Expediting Clerks	170	13.5	1.0
Stock Clerks-Stockroom or Warehouse	160	18.8	0.9
Traffic, Shipping, and Receiving Clerks	140	10.0	0.8
Other Material Recording and Related Workers	30	N.A.	0.2
Other Clerical and Administrative Workers	40	N.A.	0.2
Service Workers	180	N.A.	1.0
Guards and Watch Guards	40	22.9	0.2
Janitors and Cleaners	140	19.4	0.8
Production and Maintenance Workers	13,910	N.A.	80.3
Mechanics and Repairers Supervisors	60	14.9	0.3
Production Supervisors	590	6.9	3.4
Transportation and Material Moving Supervisors	50	10.3	0.3
Laborers Supervisors	40	31.9	0.2
Other Supervisors	30	N.A.	0.2
Precision Inspectors, Testers, and Graders	150	19.0	0.9
Production Inspectors	300	18.9	1.7
Mechanics and Repairers	660	N.A.	3.8
Machinery Maintenance Mechanics	150	18.5	0.9
Machinery Maintenance Workers	40	27.6	0.2
Maintenance Repairers, General Utility	190	11.9	1.1
Heating, Air Conditioning, and Refrigeration Mechanics	30	31.9	0.2
Other Mechanics and Repairers	250	N.A.	1.4
Carpenters	210	22.4	1.2
Electricians	60	17.2	0.3
Tool and Die Makers	140	13.2	0.8
Machinists	530	15.3	3.1

TRANSPORTATION EQUIPMENT
(SIC 37, Except 379)

June, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Precision Tool Grinders, Filers, Sharpeners	60	19.9	0.3
Shipfitters	50	24.6	0.3
Sheet Metal Workers	210	29.7	1.2
Other Precision Woodworkers	20	N.A.	0.1
Other Precision Workers	60	N.A.	0.4
Grinding, Lapping, and Buffing Machine Operators and Tenders, Metal and Plastic	200	19.6	1.2
Machine Cutting Operators and Tenders, Metal and Plastic	60	23.6	0.4
Press and Press Brake Setters and Set-up Operators, Metal and Plastic	200	30.4	1.2
Welding Machine Setters and Set-up Operators	450	24.3	2.6
Other Metal and Plastic Machine Setters and Set-up Operators	1,250	N.A.	7.2
Other Metal and Plastic Machine Operators and Tenders	1,310	N.A.	7.6
Painters, Transportation Equipment	220	25.1	1.3
Painting and Related Machine Setters and Set-up Operators	50	29.7	0.3
Painting and Related Machine Operators and Tenders	100	20.6	0.6
Other Machine Setters and Set-up Operators	70	N.A.	0.4
Other Machine Operators and Tenders	500	N.A.	2.9
Other Precision Metal Assemblers	290	N.A.	1.7
Machine Assemblers	780	31.4	4.5
Electrical and Electronic Assemblers	340	33.8	2.0
Welders and Cutters	590	27.4	3.4
Assemblers and Fabricators—except Machine, Electrical, Electronic, and Precision	2,020	20.7	11.6
Other Hand Workers	780	N.A.	4.5
Truck Drivers, Heavy-inc. Tractor Trailer	110	26.0	0.6
Other Motor Vehicle Operators	50	N.A.	0.3
Industrial Truck and Tractor Operators	330	20.3	1.9
Mechanic and Repairer Helpers	40	34.3	0.3
Material Movers, Hand	160	17.9	0.9
Other Laborers	790	N.A.	4.4

1/ Details may not add to total because of rounding or data suppression.

MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS;
PHOTOGRAPHIC, MEDICAL, AND OPTICAL GOODS, WATCHES AND CLOCKS
(SIC 38, Except 381, 382, 387)

April, 1983

Establishments in this major group are primarily engaged in manufacturing optical instruments and lenses; surveying and drafting instruments; surgical, medical, and dental instruments, equipment, and supplies; opthalmic goods and photographic equipment.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	5,260	N.A.	100.0
Managers and Officers	230	N.A.	4.4
Industrial Production Managers	60	4.4	1.2
General Managers and Top Executives	110	3.4	2.1
Other Managers and Administrators	60	N.A.	1.1
Professional and Technical Workers	450	N.A.	8.7
Accountants and Auditors	20	12.9	0.4
Purchasing Agents and Buyers, except Farm Products	20	14.9	0.4
Other Management Support Workers	20	N.A.	0.4
Engineers	170	N.A.	3.2
Industrial Engineers	20	4.8	0.4
Mechanical Engineers	60	2.9	1.1
Other Engineers	90	N.A.	1.7
Other Engineering Technicians and Technologists	50	N.A.	1.0
Chemists	40	0.0	0.8
Chemical Technicians and Technologists, except Health	50	9.4	1.0
Other Science Technicians and Technologists	60	N.A.	1.1
Other Professionals, Paraprofessionals, and Technicians	20	N.A.	0.4
Sales Workers	130	N.A.	2.4
Sales Representatives, Scientific-except Retail	130	1.8	2.4
Clerical Workers	530	N.A.	10.0
Secretaries	70	9.7	1.4
Order Clerks	30	0.0	0.5
Procurement Clerks	20	6.7	0.3
Bookkeeping, Accounting, and Auditing Clerks	30	7.7	0.5
General Office Clerks	120	4.9	2.3
Production, Planning, and Expediting Clerks	50	6.9	0.9
Stock Clerks-Stockroom or Warehouse	40	7.7	0.8
Traffic, Shipping, and Receiving Clerks	60	1.6	1.2
Other Clerical and Administrative Workers	110	N.A.	2.1
Service Workers	70	N.A.	1.3
Janitors and Cleaners	70	4.6	1.3

MEASURING, ANALYZING, AND CONTROLLING INSTRUMENTS;
PHOTOGRAPHIC, MEDICAL, AND OPTICAL GOODS, WATCHES AND CLOCKS
(SIC 38, Except 381, 382, 387)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Production and Maintenance Workers	3,850	N.A.	73.1
Production Supervisors	250	5.8	4.7
Other Supervisors	80	N.A.	1.5
Precision Inspectors, Testers, and Graders	30	29.4	0.6
Production Inspectors	90	16.6	1.7
Mechanics and Repairers	150	N.A.	2.7
Machinery Maintenance Mechanics	110	2.8	2.0
Maintenance Repairers, General Utility	40	11.2	0.7
Tool and Die Makers	20	27.1	0.5
Other Precision Workers	140	N.A.	2.6
Other Metal and Plastic Machine Setters and Set-up Operators	110	N.A.	2.1
Other Metal and Plastic Machine Operators and Tenders	210	N.A.	4.0
Packaging and Filling Machine Operators and Tenders	40	31.6	0.8
Other Machine Operators and Tenders	1,050	N.A.	20.0
Painting and Related Workers, Hand	30	15.4	0.6
Assemblers and Fabricators, except Machine, Electrical, Electronic, and Precision	950	18.6	18.0
Other Hand Workers	230	N.A.	4.4
Industrial Truck and Tractor Operators	40	12.5	0.8
Material Movers, Hand	40	16.2	0.7
Other Laborers	390	N.A.	7.4

1/ Details may not add to total because of rounding or data suppression.

MISCELLANEOUS MANUFACTURING INDUSTRIES
(SIC 39)

May, 1983

This major group includes establishemnts primarily engaged in manufacturing items not classified in any other major group. Included in this are jewelry, silverware, musical instruments, toys, sporting goods, pens, pencils, novelties, brooms, caskets, and other miscellaneous goods.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	4,800	N.A.	100.0
Managers and Officers	280	N.A.	5.7
General Managers and Top Executives	250	7.6	5.1
Other Managers and Administrators	30	N.A.	0.6
Professional and Technical Workers	150	N.A.	2.9
Accountants and Auditors	20	15.0	0.4
Purchasing Agents and Buyers, except Farm Products	30	14.5	0.6
Other Engineers	20	N.A.	0.4
Drafters	20	25.5	0.4
Designers	40	18.4	0.7
Other Professional, Paraprofessional and Technical Workers	20	N.A.	0.4
Sales Workers	200	N.A.	4.2
Sales Supervisors	40	22.2	0.8
Other Sales Representatives, except Retail	80	N.A.	1.7
Other Sales and Related Workers	80	N.A.	1.7
Clerical Workers	530	N.A.	10.9
Secretaries	110	7.9	2.3
Typists	20	16.5	0.3
Bookkeeping, Accounting, and Auditing Clerks	70	10.7	1.5
General Office Clerks	160	11.3	3.3
Other Office Machine Operators	20	N.A.	0.4
Production, Planning, and Expediting Clerks	20	12.4	0.4
Stock Clerks-Stockroom or Warehouse	20	16.6	0.4
Traffic, Shipping, and Receiving Clerks	90	13.0	1.9
Other Material Recording and Related Workers	20	N.A.	0.4
Service Workers	30	N.A.	0.7
Janitors and Cleaners	30	10.9	0.7
Production and Maintenance Workers	3,610	N.A.	75.0
Production Supervisors	210	6.7	4.4
Precision Inspectors, Testers, and Graders	30	16.8	0.6
Production Inspectors	60	11.6	1.2
Mechanics and Repairers	180	N.A.	3.8
Machinery Maintenance Mechanics	30	28.7	0.7
Maintenance Repairers, General Utility	150	11.6	3.1

MISCELLANEOUS MANUFACTURING INDUSTRIES
(SIC 39)

May, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Electricians	20	24.6	0.5
Sheet Metal Workers	110	22.6	2.2
Cabinetmakers and Bench Carpenters	60	22.5	1.3
Other Precision Woodworkers	120	N.A.	2.5
Other Precision Workers	160	N.A.	3.3
Machine Cutting Operators and Tenders	60	21.2	1.3
Plastic Molding and Casting Machine Setters and Set-up Operators	30	23.1	0.6
Plastic Molding and Casting Machine Operators and Tenders	60	27.5	1.2
Screen Printing Machine Setters and Set-up Operators	30	26.6	0.7
Sewing Machine Operators, Non-Garment	70	22.0	1.5
Packaging and Filling Machine Operators	110	24.9	2.3
Other Machine Operators and Tenders	650	N.A.	13.5
Welders and Cutters	60	32.3	1.2
Painters and Related Workers, Hand	110	21.2	2.2
Assemblers and Fabricators-except Machine, Electrical, Electronic, and Precision	630	10.2	13.1
Other Hand Workers	290	N.A.	6.0
Truck Drivers, Heavy-inc. Tractor Trailer	30	17.6	0.6
Machine Feeders and Offbearers	30	30.7	0.6
Material Movers, Hand	80	16.7	1.7
Hand Packers and Packagers	250	14.3	5.2
Other Laborers	170	N.A.	3.5

1/ Details may not add to total because of rounding or data suppression.

HOSPITALS
(SIC 806)

April, 1983

Establishments in this major group are primarily engaged in providing diagnostic services, extensive medical treatment including surgical services, and other hospital services, as well as continuous nursing services.

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Total Employment	84,910	N.A.	100.0
Managers and Officers	3,330	N.A.	4.0
Financial Managers	160	4.5	0.2
Personnel and Labor Relations Managers	160	4.2	0.2
Purchasing Managers	90	4.2	0.1
Marketing, Advertising, and Public Relations Managers	50	6.1	0.1
Administrative Services Managers	110	9.5	0.1
Medical and Health Service Managers	950	4.3	1.1
Food Service and Lodging Managers	140	3.1	0.2
General Managers and Top Executives	1,020	18.7	1.2
Other Managers and Administrators	650	N.A.	0.8
Professional and Technical Workers	43,050	N.A.	51.0
Accountants and Auditors	120	5.3	0.1
Other Financial Specialists	80	N.A.	0.1
Purchasing Agents and Buyers, except Farm Products	100	3.6	0.1
Personnel and Labor Relations Specialists	190	10.7	0.2
Other Management Support Workers	220	N.A.	0.3
Other Engineers	100	N.A.	0.1
Other Engineering Technicians and Technologists	50	N.A.	0.1
Other Science Technicians and Technologists	120	N.A.	0.1
Computer Programmers	70	7.3	0.1
Computer Program Aides	50	14.7	0.1
Psychologists	280	11.9	0.3
Other Social Scientists	130	N.A.	0.2
Social Workers, Medical and Psychiatric	1,250	12.4	1.5
Social Workers, except Medical and Psychiatric	110	16.3	0.1
Social Service Technicians	160	13.5	0.2
Clergy	100	17.3	0.1
Nursing Instructors	200	9.1	0.2
Teachers and Instructors, Vocational, Education and Training	40	22.6	0.1
Other Teachers and Instructors	210	N.A.	0.2
Physicians and Surgeons	1,260	13.1	1.5
Dentists	40	14.4	0.1
Other Health Practitioners	90	N.A.	0.1
Respiratory Therapists	820	8.5	1.0
Occupational Therapists	140	10.9	0.2
Physical Therapists	350	3.7	0.4

HOSPITALS
(SIC 806)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Speech Pathologists and Audiologists	140	10.4	0.2
Recreational Therapists	120	7.5	0.1
Other Therapists	230	N.A.	0.3
Registered Nurses	15,840	4.2	18.7
Licensed Practical Nurses	6,400	2.2	7.5
Emergency Medical Technicians	240	13.4	0.3
Physicians Assistants	140	15.5	0.2
Pharmacists	540	3.3	0.6
Dietitians and Nutritionists	240	2.8	0.3
Dietetic Technicians	160	8.3	0.2
Medical and Clinical Laboratory Technologists	1,640	3.0	1.9
Medical and Clinical Laboratory Technicians	1,130	8.3	1.3
Medical Records Technicians	430	4.8	0.5
Nuclear Medical Technologists	150	5.4	0.2
Radiologic Technologists	670	7.6	0.8
Radiologic Technicians	910	6.4	1.1
Electroencephalograph Technicians and Technologists	70	6.8	0.1
Electrocardiograph Technicians and Technologists	240	4.7	0.3
Surgical Technicians	1,000	11.6	1.2
Other Health Professionals, Paraprofessionals and Technicians	5,820	N.A.	6.9
Other Professionals, Paraprofessionals, and Technicians	660	N.A.	0.8
Sales Workers	260	N.A.	0.3
Cashiers	260	6.2	0.3
Clerical Workers	13,140	N.A.	15.5
Clerical Supervisors	590	3.3	0.7
Medical Secretaries	1,220	5.0	1.4
Other Secretaries	1,360	N.A.	1.6
Stenographers	110	15.2	0.1
Receptionists and Information Clerks	570	5.1	0.7
Typists	1,270	7.7	1.5
Typists, Word Processing Equipment	240	33.2	0.3
Personnel Clerks	170	6.4	0.2
File Clerks	400	8.4	0.5
Order Clerks	150	21.9	0.2
Procurement Clerks	90	9.7	0.1
Statistical Clerks	160	14.9	0.2
Interviewing Clerks, except Personnel and Social Welfare	640	8.4	0.7
Bookkeeping, Accounting, and Auditing Clerks	360	3.9	0.4

HOSPITALS
(SIC 806)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Payroll and Timekeeping Clerks	140	3.7	0.2
Billing, Cost, and Rate Clerks	1,050	5.8	1.2
General Office Clerks	1,930	6.9	2.3
Office Machine Operators	460	N.A.	0.6
Computer Operators	150	8.1	0.2
Data Entry Keyers	250	4.8	0.3
Other Office Machine Operators	60	N.A.	0.1
Switchboard Operators	590	3.7	0.7
Stock Clerks-Stockroom or Warehouse	540	6.7	0.6
Traffic, Shipping, and Receiving Clerks	80	16.7	0.1
Other Material Recording and Related Workers	110	N.A.	0.1
Other Clerical and Administrative Workers	910	N.A.	1.1
Service Workers	22,230	N.A.	26.1
Housekeepers	670	12.1	0.8
Other Service Supervisors	520	N.A.	0.6
Guards and Watch Guards	520	4.2	0.6
Food Servers, Outside	760	9.3	0.9
Dining Room and Cafeteria Attendants	240	13.8	0.3
Counter Attendants, Food	160	10.5	0.2
Bakers, Bread and Pastry	100	6.9	0.1
Cooks, Instant or Cafeteria	800	5.2	0.9
Food Preparation Workers	2,200	6.8	2.6
Other Food Service Workers	460	N.A.	0.5
Medical Assistants	480	9.4	0.6
Nurse Aides, Orderlies, and Attendants	8,950	2.6	10.5
Psychiatric Aides	270	15.5	0.3
Physical Therapists Assistants and Aides	300	5.0	0.4
Pharmacy Assistants	540	7.2	0.6
Other Health Service Workers	1,160	N.A.	1.4
Maids and Housekeeping Cleaners	3,060	3.4	3.6
Janitors and Cleaners	630	14.2	0.7
Other Service Workers	250	N.A.	0.3
Gardners and Groundskeepers, except Farm Workers	160	4.9	0.2
Production and Maintenance Workers	2,900	N.A.	3.5
Mechanics and Repairers Supervisors	170	12.4	0.2
Other Supervisors	80	N.A.	0.1
Machine Maintenance Mechanics	260	16.0	0.3
Maintenance Repairers, General Utility	470	3.4	0.6
Heating, Air Conditioning, and Refrigeration Mechanics	110	5.8	0.1
Electromedical Equipment Repairers	90	8.8	0.1
Other Mechanical Installers and Repairers	80	N.A.	0.1
Carpenters	120	4.1	0.1

HOSPITALS
(SIC 806)

April, 1983

Occupation	Estimated 1/ Employment	Relative Error %	Percent 1/ Distribution
Electricians	130	3.2	0.2
Painters and Paperhangers	150	8.8	0.2
Plumbers and Pipefitters	80	3.8	0.1
Other Construction Trades Workers	70	N.A.	0.1
Sewing Machine Operators, Non-garment	60	17.6	0.1
Laundry and Dry Cleaning Machine Operators and Tenders	310	11.8	0.4
Pressing Machine Operators and Tenders	100	17.7	0.1
Low Pressure Boiler Operators and Tenders	70	16.9	0.1
Other Plant and System Operators	90	N.A.	0.1
Truck Drivers, Light-inc. Delivery and Route	120	19.0	0.1
Other Laborers	340	N.A.	0.4

1/ Details may not add to total because of rounding or data suppression.